DOCUMENT RESUME

ED 458 723 EA 031 442

AUTHOR	Palomba, Geremia; Vodopivec, Milan
TITLE	Financing, Efficiency, and Equity in Albanian Education. World Bank Technical Paper.
INSTITUTION	World Bank, Washington, DC.
REPORT NO	WP-TP-512
ISBN	ISBN-0-8213-4966-X
ISSN	ISSN-0253-7494
PUB DATE	2001-00-00
NOTE	111p.
AVAILABLE FROM	World Bank, P.O. Box 960, Herndon, VA 20172-0960 ($22). Tel: 800-645-7247 (Toll Free); Tel: 703-661-1580; Fax: 703-661-1501; e-mail: books@worldbank.org; Web site: http://www.worldbank.org.
PUB TYPE	Information Analyses (070) -- Numerical/Quantitative Data (110)
EDRS PRICE	EDRS Price MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Economic Change; Economic Factors; *Economic Impact; Economically Disadvantaged; *Educational Change; Educational Environment; Elementary Secondary Education; Equal Education; Foreign Countries; Poverty; School Closing; Teacher Dismissal
IDENTIFIERS	*Albania

ABSTRACT

When Albania began its transition to a market economy, its education was geared to meeting the productive needs of a controlled economy and the social and ideological needs of a socialist state. Expanding the economy's long-term productive capacity in a market environment and building a democratic system called for thorough reform of the education system. Rather than embark on comprehensive reform, in the 1990s Albania introduced partial reforms that--together with social unrest and the country's increasing fiscal pressures--worsened education in several ways. For example, resources devoted to education shrank. Education spending fell from over 4 percent of gross domestic product in the early 1990s to 2.8 percent in 1998. The education sector responded to fiscal pressure and low enrollment by reducing the numbers of teachers, classes, and schools. Changes in Albania's economy and education system have made schools less accessible to students in rural areas and from low-income families. Four broad tasks must be tackled to improve education in Albania: increase enrollment rates, improve the quality of education, increase public spending on education, and make better use of teachers and schools. The report ends with a technical appendix, statistical appendix, and list of references. (Contains 18 references.) (RT)

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WORLD BANK TECHNICAL PAPER NO. 512

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ED 458 723

Financing, Efficiency, and Equity in Albanian Education

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Financing, Efficiency, and Equity in Albanian Education

Geremia Palomba
Milan Vodopivec

The World Bank
Washington, D.C.

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Washington, D.C. 20433, U.S.A.

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Manufactured in the United States of America
First printing June 2001
1 2 3 4 04 03 02 01

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ISBN: 0-8213-4966-X
ISSN: 0253-7494

Geremia Palomba was a consultant with the Human Development Unit of the Europe and Central Asia Region of the World Bank. Milan Vodopivec was a consultant with the Human Development Unit of the Europe and Central Asia Region of the World Bank.

Library of Congress Cataloging-in-Publication Data

Palomba, Geremia, 1966-
Financing, efficiency, and equity in Albanian education / Geremia Palomba, Milan Vodopivec.
p. cm. -- (World Bank technical paper ; no. 512)
Includes bibliographical references.
ISBN 0-8213-4966-X
1. Education--Economic aspects--Albania. I Vodopivec, Milan. II Title. III Series.

LC67.A46 P35 2001
338.4'337'094965--dc21

2001026507

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Foreword

When Albania began its transition to a market economy, its education was geared to meeting the productive needs of a state-controlled economy and the social and ideological needs of a socialist state. Expanding the economy's long-term productive capacity in a market environment and building a democratic system called for thorough reform of the education system. Rather than embark on comprehensive reform, in the 1990s Albania introduced partial reforms that did not combine to move the sector forward.

During the transition, real resources devoted to education have shrunk. Education spending fell from well over 4 percent of GDP (Gross Domestic Product) in the early 1990s to 2.8 percent of GDP in 1998. Real spending per student also fell despite a decline in the number of students. Spending on education has been limited to the bare essentials, at the expense of important needs that produce no immediate return, such as maintenance and teacher training. This policy of minimal education spending reduces the value of physical assets and human capital, and jeopardizes the quality of education — without necessarily bringing true savings. Inadequate public spending simply translates into higher private costs for current education and transfers present costs to future generations.

This report compiles a rich set of previously unavailable data to define where the sector has evolved, what the key challenges are in the sector and the priority areas for action by the Albanian government. It will hopefully fuel the debate more generally in the region on where and how to reform education systems.

A Dixon

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Acknowledgements

We would like to extend our sincere gratitude to our numerous Albanian and World Bank colleagues who helped us in preparing this report. We are particularly thankful to Lili Dodi and Milva Ekonomi from the Statistical Office of Albania; Eleni Coka, Rexhep Cuka, Mimoza Gjika, Edmond Hajdëri, Eduard Osmani, Ilda Sadiku, Sokol Turani, and Genci Vimcam, from the Ministry of Education; Noti Garufa from the Ministry of Finance; Linda Gjermani from Pedagogical Institute, Artan Hohxa and Stavri Llambiri from the Institute of Contemporary Studies; Albano Qojle from Lincoln Studies Center, and Mircea Enache from EMI SYSTEMS, whose endless efforts and in-depth familiarity with the Albanian education system helped us in collecting and preparing the data. We would also like to thank Fatmir Vrapi, our interpreter, for his outsanding efforts, and Lida Kita from the Tirana residence mission for preparing our trip to Tirana and providing us with an invaluable "field assistance." We also gratefully acknowledge a superb research assistance of Debabrata Das. We also benefited greatly from the insightful comments of our colleagues at the World Bank – Harry Patrinos, our peer reviewer, and Maureen Lewis. And last but certainly not least, we would like to thank Sue Berryman for her encouragement throughout the study – and for her unmistakable professional instincts which guided much of our work.

Executive Summary

When Albania began its transition to a market economy, its education was geared to meeting the productive needs of a controlled economy and the social and ideological needs of a socialist state. Expanding the economy's long-term productive capacity in a market environment and building a democratic system called for thorough reform of the education system. Rather than embark on comprehensive reform, in the 1990s Albania introduced partial reforms that — together with social unrest and the country's increasing fiscal pressures — worsened education in Albania in several ways.

During the transition, real resources devoted to education have shrunk. Education spending fell from well over 4 percent of GDP (Gross Domestic Product) in the early 1990s to 2.8 percent of GDP in 1998. Real spending per student also fell despite a decline in the number of students. Spending on education has been limited to the bare essentials, at the expense of important needs that produce no immediate return, such as maintenance and teacher training. This policy of minimal education spending reduces the value of physical assets and human capital, and jeopardizes the quality of education — without necessarily bringing true savings. Inadequate public spending simply translates into higher private costs for current education and transfers present costs to future generations. This kind of intergeneration redistribution of costs is undesirable.

Enrollment — and enrollment rates — also fell sharply at all levels except tertiary education. The absolute number of students enrolled in 1998 was 15 percent below enrollment for 1989. Contributing to low enrollment were the low returns to education, the increased opportunity costs of attending school, and poor quality of educational services.

Returns to education are currently much lower in Albania than in other countries, except for basic education (primary and lower secondary school).

In the 1990s, the education sector responded to fiscal pressure and low enrollment by reducing the number of teachers, the number of classes, and the number of schools. The number of teachers fell proportionately less than the number of students, so the student-teacher ratio declined — but in 1998 it was still higher than the ratio in developed economies at all levels of education.

Changes in Albania's economy and education system have made schools less accessible to students in rural areas and from low-income families. (Fortunately, it has not made schools less accessible to girls than boys.)

Four broad tasks must be tackled to improve education in Albania. The country must:

- *Increase enrollment rates* with the goal of achieving truly universal education in primary and lower secondary schools and reversing the actual trend of decreasing secondary enrollment.
- *Improve the quality of education.* This requires 1) developing human resource policies (such as teacher development programs and improved salaries) that will attract good teachers and give them incentive to perform well in classrooms; and 2) providing an

adequate physical school environment, which means, among other things, renovating and adequately maintaining school buildings.

- *Increase public spending on education.* This requires 1) developing clear priorities for the sector and reduce relative spending on tertiary education; 2) providing constant and reliable funding to support the identified policy priorities, and 3) increase spending on non-wage expenditures and investments.
- *Make better use of teachers and schools.* The most important way to do so is to decentralize decision-making and responsibilities that are more reasonably delegated to the local level.

1 The Current Challenges in Albanian Education

Education is essential in the transition to a market economy, and is particularly important to social and economic development in Albania, where more than 45 percent of the population is of school age. Adapting to rapid transformation, responding to changing economic conditions, and participating in an emerging democratic system does require well-educated workers and citizens.

Since the economic transition in Albania began in 1989, however, participation in education has been steadily decreasing and financial resources for schools have been increasingly constrained. Indeed, the education system has had trouble in adapting to rapid social and economic change which has exposed Albanian education to increasing challenges associated, in particular, with the quality and the financing of education services.

In the Albania's formerly planned economy, the quality of education was targeted toward the productive needs of a controlled economy and the ideological and social requirements of a socialist state, and this created problems during the transition. This narrow focus has limited the education system's ability to respond to changing economic structures, to adapt to new rewards in the labor market, and to provide people with the right skills for a market economy. The transition to a market economy and to a different political system has thus highlighted shortcomings in Albania's educational processes.

The economic transformation has also caused economic changes critical to the financing of the education sector. Economic recession (and sometimes social unrest) has steadily reduced the resources available to finance education. In addition, price liberalization has changed the relative cost of resources, rendering current allocations economically "inefficient" but, at the same time, creating room for different resource allocations, and opening the door to potential savings.

Problems with the quality of education are important, of course, but this study is mainly concerned with issues of financing, cost minimization, and equity. How financial resources are used is critical to effective education, but in Albania there has been very little discussion about how resources are allocated, and whether they are used "efficiently". The purpose in this report is to rigorously examine the real and financial resources devoted to Albanian education. We document their use and allocation, discuss issues of "economic" and "technical" efficiency, argue for certain policies for the sector, and investigate the fiscal effects of various policy recommendations. In doing so, we discuss not just financing and resources allocation, but also structural changes that affect participation in, and access to, education, and that influence equity in educational spending.

In chapter 2 we examine how the economic transition has changed access to, and equity in, Albanian education. To understand determinants of, and incentives for, school participation at different levels of schooling, we also estimate a (probit) model of upper secondary school attendance, and calculate returns to education. Changes in participation also affect the financing of the sector and the use of resources. In chapter 3, we focus on the public financing of education in Albania and on economic efficiency. We discuss how the transition has affected the government's commitment to finance education, and how price liberalization has changed the relative cost of inputs, requiring changes in the deployment of funds among different uses. This chapter provides a large range of aggregate and per capita indicators which are new for Albanian education, thus permitting an original analysis and extensive international comparisons. The rest of the report is concerned with the allocation human and physical resources and with the issue of "technical" efficiency in Albanian education. In chapter 4, we review the human and physical resources devoted to education. We describe changes in teaching and nonteaching staff, and investigate the use of such physical resources as school buildings and facilities, and other inputs. We examine changes in the costs of education (including changes in class and school size and in student-teacher ratios) and, to a limited extend, in education output.

This analysis suggests a number of recommendations and policies, and in chapter 5, we evaluate the costs associated with various reform proposals, including the costs associated with higher enrollment and more spending on salaries and non-teaching costs. In chapter 6 we summarize our recommendations and conclusions, emphasizing the need to increase enrollment rates at all levels, and to improve the quality of education, to mobilize new resources, and to economize on the use of current resources.

2 How Access to Education Has Changed in Albania

The amount of resources to devote to the education sector depends on access to education. All other things being equal, for example, greater and longer enrollment may require to invest additional resources in the sector. How has access changed during the economic transition in Albania? What are the reasons behind these changes? Has any group faced disproportionate difficulty gaining access to education services? What are the implications of these changes for the public budget?

In answering these questions, we confine our analysis to enrollment in public schools; as table 2.1 shows, enrollment in private schools is numerically not significant and can be omitted. The analysis draws on the International Standard Classification of Education (ISCED), and table 2.2 shows the different levels of schooling as well as the typical range of attending age in Albania. "Pre-primary" includes children aged 3 to 5. "Basic education" includes primary and lower secondary school and students up to the age of 13. "Upper secondary" is divided in general and vocational education and ranges between the age of 14 and 18. "Tertiary education" includes universities as well as higher education schools, what we call non-university education.

The discussion begins in the next section with examining participation before and after the transition, and section 2.2 discusses equity issues and the access to education of different groups. In section 2.3 we consider changes in enrollment at different levels of education. These have been particularly large at upper secondary schools, and in section 2.4 we estimate a *probit* model to explore determinants of, and incentives for, school attendance at this level. Participation also depends on returns to education and section 2.5 examines returns to education in Albania compared with other countries. Recent economic and social changes have unequally affected the access to education of different groups of the population. The last section summarizes the main issues raised.

Declining Participation Rates

Albania started the transition from a base of significant accomplishments in education, but since then, total enrollment has sharply decreased and the level of participation in education has been seriously jeopardized.

Before the transition

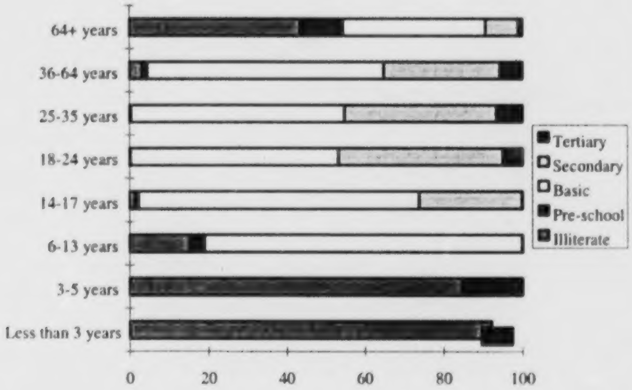
Albania entered the transition with high levels of participation at all levels of education. In 1990, 920,000 students were registered, or about 68 percent of the school-age population (table 2.3). Access to basic primary and lower secondary education was free and universal, enrollment in upper secondary education high, and literacy almost universal.

The enrollment rates provide a good measure of the large participation in education.[1] As the transition began, gross enrolment rates in Albania were almost 60 percent for pre-primary education (table 2.4), above 100 percent for basic education (table 2.5), and about 80 percent for upper secondary education (tables 2.6 and 2.7). Access to education at these levels was excellent indeed.

Except for tertiary education, enrollment rates in Albania were generally higher than those in other planned economies in the region (tables 2.4-2.8). Albanian enrollment rates were particularly high when compared with the country's immediate neighbors such as the Federal Republic of Yugoslavia and FYR Macedonia.

Not surprisingly, broad access to education also led to significant educational attainment. There is almost no illiteracy in Albania according to the 1996 Living Standard Measurement Survey (figure 2.1), and, roughly 45 percent of the population aged 25 to 35 has at least an upper secondary education degree (Rashid and Dabarawila, 1999). Compared with performances in countries represented in the recent World Education Indicators (OECD, 1998), these results are outstanding.

Figure 2. 1 Highest average level of education Albanians achieved, by age group



Source: Rashid and Dorabawila (1999).

During and after the transition

Recent social and economic changes have brought different trends in school participation, in many cases jeopardizing previous achievements. Since 1990, total enrollment has been declining despite a continuous increase in the school-age population (table 2.3).

Lower enrollment and increasing school-age population imply that an increasing number of children from new cohorts have been left out of the education system. Figure 2.2 shows changes in population and in the number of students enrolled in 1997 with respect to 1990, and graphically illustrates the number of children that the education system has missed.[2]

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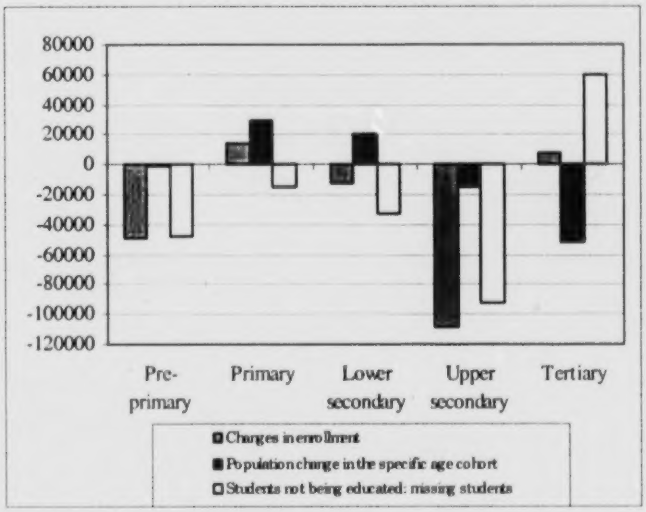
[1] There are two different definitions of enrollment rates: net and gross rates. The *net enrollment rate* is the number of children in a specified age group enrolled at a given level of education, divided by the total number of children in that age group in the general population. The *gross enrollment rate* is the number of children, regardless of age, enrolled at a given level of education, divided by the total number of children in the age group specified for that level of education. In this discussion we generally refer to gross enrollment rates unless differently specified.

Figure 2.2 "Missing students"
changes in total enrollment and in population, 1990 and 1997



Source: Calculations based on data from the Statistical Office of Albania
(see table 2.3 in the statistical appendix)

As the school-age population changes, enrollment generally lie far behind, leaving an increasing number of children outside the education system (white columns in figure 2.2), except in tertiary education; the drop in enrollment was especially pronounced in upper secondary schools. In 1997, there was a total of 187,000 more students (with the exception of tertiary education) out of the system than in 1990, an increase of about 14 percent of the population aged 3 to 22. The magnitude of these differences suggests that a very large number of students have been missed.

The growing number of "missing students" has also led to lower rates of enrollment. Gross enrollment rates in 1997 compared to those in 1990 decreased at all levels of schooling, except for full-time student in tertiary education (see figure 2.3).

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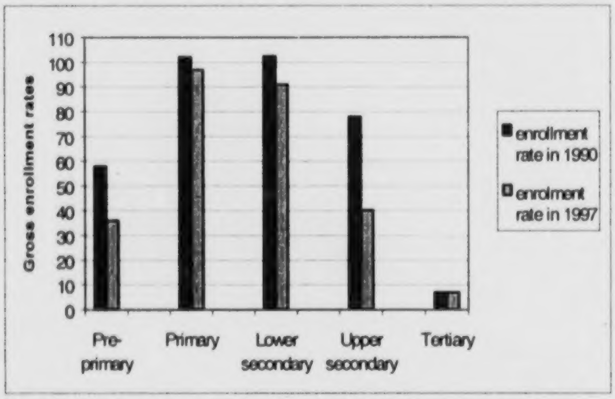
[2] Figure 2.2 is based on gross enrollment, including students of all ages; therefore, it underestimates the number of students left out of the system for each age group.

Figure 2.3 Declining gross enrollment rates in Albania, 1990/1997

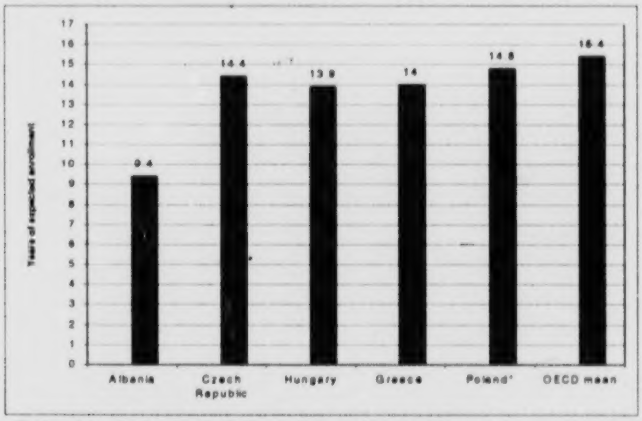


Note: Enrollment rates for tertiary education only include full-time students
Source: Elaboration of data from the Statistical Office of Albania

The increasingly low levels of participation in Albanian education are well reflected in the "school expectancy" for new cohorts; that is the number of years of full-time education a 6-year-old child can, in average, expect over his or her life time. This is a powerful summary indicator of school participation, and can be used to compare Albanian participation to international standards.[3]

We calculate that school expectancy in Albania in 1997 was 9.4 years, which is an extremely low figure by international standards. It is 6 years lower than the OECD mean of 15.4 years, and lower than in other economies in transition (see figure 2.4) such as for example the Czech Republic (14.4 years), Hungary (13.9 years) and Poland (14.8 years).

Figure 2.4 Albania's low school expectancy, 1997



(*) Expectancy for Poland includes both full- and part-time students.
Source: For Albania our calculations based on net enrollment rates for 1997; these calculations are available on request from the authors. Data for OECD countries are for 1996 and for a 5-year-old child (OECD, 1998).

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[3] School expectancy is defined as the sum of net enrollment rates from age 6 to age 29. For a discussion of this indicator see, for example, OECD (1998).

Effects on Equity in Education

With participation in Albanian education down so much, how accessible is education to different groups of the student population today, several years after the launching of transition reforms? Has girls' fairly equal access to schooling (gender equity being one unquestioned triumph of the communist era) been eroded by the transition? Has access to education for the rural population, for low-income families, and for women been affected by the transition? How?

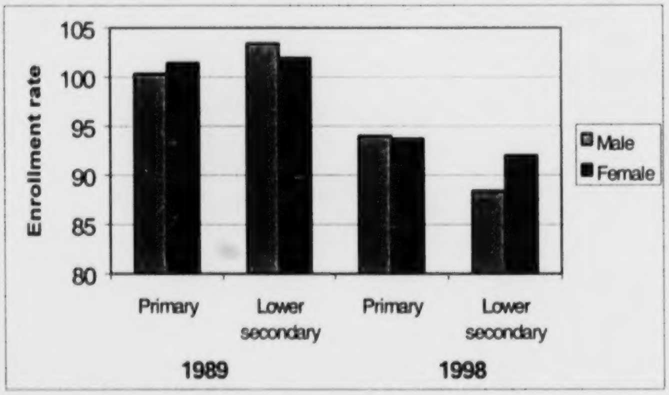
Rural access to education

Rural enrollment is large (see table 2.10), but enrollment rates are much lower in rural areas than in urban areas, at all levels of education except basic education (Rashid and Dorabawila 1999). It follows that relative participation is lower in rural areas than in urban ones. Moreover, student progression rates, at all levels of education, tend to be lower in rural than in urban areas, particularly in the north of the country (see Statistical appendix). This is in part the result of low quality of education. As a matter of fact, the quality of teachers as measured, for example, by the percent of unqualified teachers in rural areas is worse, especially in the north (see Statistical appendix).

Girls' access to education

Gender equality in enrollment rates has been preserved. Both male and female enrollment rates in primary and lower secondary schools were reduced significantly during the 1990s, but the reduction was about equal for both genders. In fact, the enrollment rate fell less for girls in lower secondary education than for boys (figure 2.5 and table 2.9).

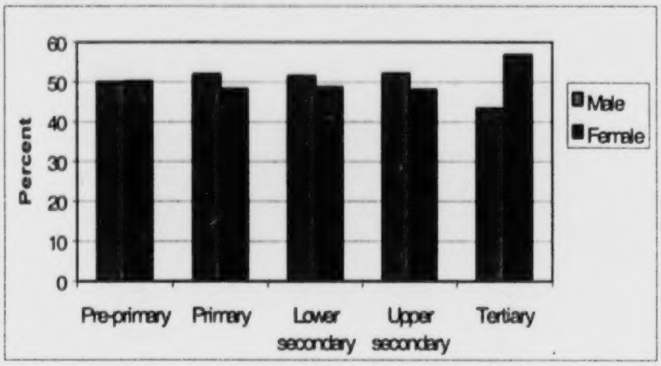
Figure 2.5 Sustained gender equity in primary and lower secondary enrollment rates, 1989/1998



Source: Table 2.9.

In 1998, women represented about half of the enrollment at all levels of education, and an even a higher share of enrollment in tertiary education (figure 2.6).

Figure 2.6 Structure of enrollment by gender, 1998

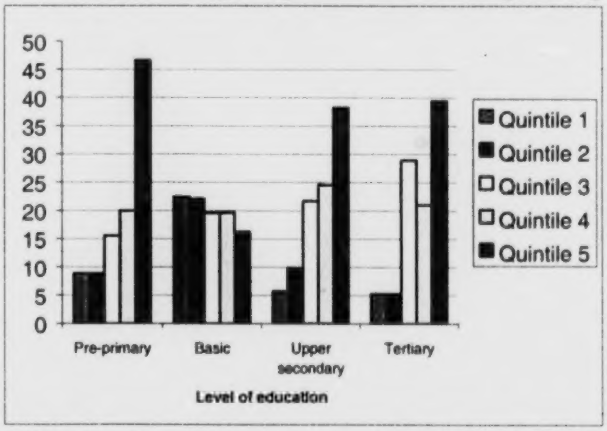


Source: Statistical Office of Albania

How much of public education expenditures is spent on low-income families?

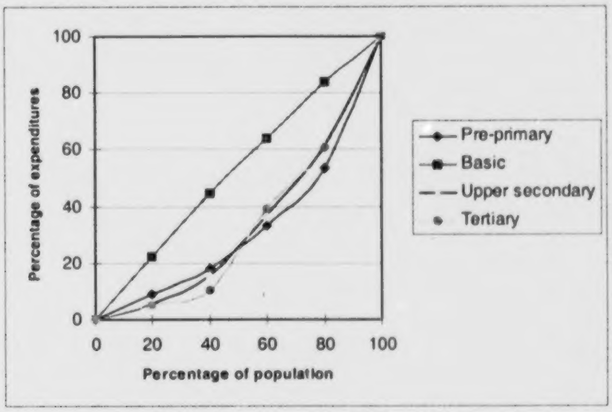
Equity in education can also be considered from the point of view of who benefits from public expenditures on education. As shown in figures 2.7 and 2.8, only in basic education the concentration curve of expenditures is above the 45 degree line (the equal distribution line), meaning that only in basic education the share of public expenditures spent on education of children from poor families exceeds the share of poor families in the population. At all other levels of education, higher income groups benefit more than proportionally. Interestingly, the benefits are most regressive at the pre-primary level, where the share in public spending going to the richest 20 percent of the population was over 45 percent, and the share to the poorest 20 percent was less than 10 percent. The picture is similar for upper secondary and tertiary education, at which levels the poorest 20 percent of the population received only 5 percent of public spending.

Figure 2.7 Spending on public education by income quintiles, 1996 (as percentage of public education spending)



Source: Authors' computations based on Albanian Employment and Welfare Survey, 1996.

Figure 2.8 Cumulative public education expenditures by income quintiles, 1996



Source: Authors' computations based on Albanian Employment and Welfare Survey, 1996

Reasons for declining participation

Why did participation in school declined? Why was the drop most intense at the upper secondary level? How has this influenced the distribution of resources? To consider these questions, we examine separately the different levels of schooling (pre-school, basic, upper secondary, and tertiary education) because determinants of supply and demand at each level differ, as do reasons for changes in participation. These reasons are important to determine the future financial needs of the education sector in Albania.

Pre-school

Pre-school enrollment rates fell sharply between 1989, when they were 56.7 percent, and 1998, when they were 35.8 percent (table 2.9). This decline reflects changes both in the supply and in the demand for educational services. Certainly, the supply of services has been withdrawn: the number of preschools, for example, declined about 30 percent between 1989 and 1998 with the decline being larger in rural areas.[4] However, this alone cannot be taken as an explanation for recent reductions in enrollment; indeed, an exclusive emphasis on supply would neglect important factors.

The decline in pre-school enrollment has been more marked in urban than in rural areas, suggesting that demand has played a major role in recent changes. Relative rural enrollment has slightly increased between 1990 and 1997 while urban total enrollment has decreased (table 2.10), during a time when there was a constant migration flow from rural to urban areas. From this it follows that there has been a strong decrease in urban pre-school enrollment rates. A possible explanation is that recent higher unemployment rates, especially of women, have reduced the need and the demand for pre-schools in urban areas; as a result, trends in participation at pre-school level are correlated with economic performance. But, if this is the case, recent trends can be expected to change as the country experiences economic recovery; this is an important feature to keep in mind in budgeting education expenditures.

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[4] For a detailed discussion of this issue see chapter 4.

Basic education (primary and lower secondary)

The picture for participation in basic education in Albania is something of a puzzle, and analysts may differ in their conclusions.

Trends in total enrollment in basic education show participation levels to have been maintained in the 1990s (see table 2.10). The recent Country Economic Memorandum for Albania (World Bank, 1998c), for example, reported that:

> "Enrollment at the primary level [*actually primary and lower secondary*] fell about 5 percent between 1990 and 1992, and has since returned to the pre-transition level... Teachers no longer consider access a significant issue at this level of education." (p. 78)

Although the number of students enrolled stayed roughly the same, *enrollment rates* over the same period deteriorated, providing a different picture about trends in access to basic education in Albania. Gross enrolment rates for primary education fell from 102.1 percent in 1990 to 93.9 in 1998, and from 102.5 to 90.1 for lower secondary school (see table 2.9). Accuracy of these figures is, of course, open to question. Calculating accurate enrollment rates requires good estimates of age cohorts which is difficult in Albania because of large population movements, new fertility behavior and the absence of a census since 1989. Still, the magnitude of change is extremely large and cannot be simply a statistical artifact. Can we explain this decline in participation?

It is difficult to pinpoint the reasons for lower participation in basic education, but the characteristics of the demand and supply of educational services provide good insights. Generally, changes in demand for basic education may be expected to have only limited effect on enrollment. Basic education is considered a "minimum" requirement to participate in the social life of the community, and returns associated with basic education are high (see next section 2.4). As a result, demand for basic education is in general highly inelastic to price (cost) and can be assumed to have only limited effect on participation.[5] However, this is less true for lower secondary education than for primary education. In this case, direct costs for schooling (textbooks, for example), and pressure for lower secondary students to find jobs are probably significant factors for explaining a lower demand and declining enrollment rates. Evidence from the 1996 Living Standard Measurement Survey (LSMS), for example, suggests that more than 35 percent of Albanian students between age 10 and 14 who leave school, do so for problems related to insufficient family's income (see table 2.11).

Given the relatively low elasticity of demand for basic education, supply plays an important role in explaining recent trends in participation, and enrollment may be particularly sensitive to reduced provision of services. When fewer resources are available, for example, both teaching and learning conditions change, and the general quality of education services eventually declines. Indeed, LSMS data show that quality is an important determinant of participation as one fifth of the students aged 10 to 14 who leave school do so because of the poor quality of education (table 2.11).

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[5] Price elasticity is defined as the percentage variation in the demand of a good associated to a given percentage variation in its price. Demand is inelastic when price elasticity is smaller than one in absolute value.

In other words, economic development and the amount of financial resources available for education are crucial determinants of the demand for, and the supply of, basic education in Albania. Of course, the analysis of these relationships requires a more specific study, but we should keep in mind these issues when discussing the future financing policies for the sector.

Upper secondary schools

Enrollment rates for upper secondary schools have declined the most dramatically, but the change has not been the same for all types of schooling. While enrollment rates for *vocational* schools have declined sharply, enrollment rates for *general secondary* school have risen from 24.4 percent in 1989 to almost 35 percent in 1998 (table 2.9).

Although there has been a shift from vocational to general secondary schools, this has not compensated for the sharp decline in vocational enrollment. Most of the students who dropped out of vocational school dropped out of school altogether, which is why total enrollment rates in upper secondary education as a whole fell from 78.6 percent in 1990 to 41 percent in 1998 (see table 2.9). Most of this decline occurred in rural areas, where the majority of agricultural vocational schools were located. The relative number of rural enrollment fell from 60 percent in 1990 to only 30 percent in 1998, but it fell much more for rural vocational schools: from 49 percent in 1990 to only 2 percent in 1998 (table 2.10). These percentages partly reflect, of course, rural-urban migration, but with 60 percent of the population living in rural areas, they suggest that major changes have occurred in the level of participation in Albanian upper secondary education in recent years.

These variations in participation in upper secondary schools may reflect changes in both demand and supply. A sharp reduction in the supply of vocational education services has certainly contributed to the decline in enrollment. In this respect, the case of agricultural schools in rural areas is a particularly good example. Early in the 1990s the government closed a large number of rural vocational agricultural schools and the effect was a tremendous drop in vocational enrollment especially in rural areas.

Generally, changes in demand play, however, a greater role in explaining participation in upper secondary education and these changes are closely related to economic development. In particular, the economic transition in Albania, as in other countries, has been associated with increasing uncertainty about future jobs, which has risen the relative risk of return for highly specialized vocational degrees. As a result, this has reduced the expected return to vocational education relative to that of broader education patterns.[6] Against this background, the broad shift from vocational to general education is a predictable response; it is an attempt to reduce risk and to increase expected income. In addition, demand for upper secondary education depends also on the opportunity cost of going to school. With increasing income opportunities in labor markets, high levels of education entail higher income and an increasing opportunity cost of staying at school (in terms of lost income) which may reduce the demand for education services. The importance of these different factors is an issue difficult to examine and requires a separate analysis. In section 2.4, we use a *probit* model to show how demand factors do in fact shape changes in enrollment in secondary education in Albania.

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[6] For discussion of rates of return in Albania for different levels of education, and international comparisons, see section 2.5.

Tertiary education (university and high or non-university schools)

In contrast to the other levels of education, enrollment at the tertiary level has not declined across the last decade. While the number of full-time students has in fact been stable, enrollment of part-time students have seen a major increase. In 1990 part-time students represented only 20 percent of enrollment in tertiary institutions, but by 1997 almost half the student were registered as part-time (table 2.12). Taking full-time and part-time student together, the tertiary gross enrollment rate rose from 9 percent in 1990 to 13.3 percent in 1998, while for full-time students enrollment rate did not change much.

The large increase in part-time enrollment has been the result of constraints in the supply of education. In particular, the system has been unable to adapt to changing labor demand. With radical economic transformation, the types of skills required in labor markets have changed, but the provision of tertiary education has not changed much. The system has been especially slow in adapting to new demand for education in the humanities and social sciences (World Bank, 1998c). Partly, this is the result of limited autonomy and scarce resources that universities have to make strategic decisions. Only in February 1999, for example, did the parliament pass a new "Law on Higher Education" calling for more autonomy for the universities and the opening of private institutions. However, number of follow-up decrees must still go through before the law takes full effect.

The increase in part-time enrollment also reflects changes in demand for tertiary education. In particular, with an increasing mismatch between the skills required in labor markets and those provided by universities, part-time enrollments represent the rational response to the increased risk of investing time and resources in full-time higher education whose final returns on today's labor market are uncertain. In fact, the expected average rate of return to tertiary education in Albania is today relatively low (see discussion on page 15-16). As a whole, tertiary education requires radical reforms in the provision of services, and changes in demand can also be expected as the country develops. These factors are important in deciding about how to finance tertiary education. Indeed, a good analysis of the determinants of participation at all levels of education is critical for financing purposes.

Why Participation in Upper Secondary Schools Declined

What factors have contributed to the steep reduction in participation in upper secondary schools? True, many vocational schools closed down in the early 1990s, but why were more students not attracted to general upper-secondary schools? Vocational schools could simply have been converted to general secondary schools.

In formulating the framework for our empirical analysis, we postulate that changes in both supply and demand have helped reduce participation. On the supply side, financial stringency has reduced the resources available to education, thereby affecting the quality of schooling through deteriorating conditions (lack of teaching materials, inadequate maintenance of buildings, unheated rooms), and by inadequate support for teachers (no training, falling salaries, and so on). And research shows that students attending schools of poor quality are much less likely to remain in school than students in good schools (see, for example, Hanushek and Lavy, 1994).

On the demand side, the opportunity costs of schooling have increased, reducing the perceived value of schooling to students and parents. First, the growing entrepreneurial private sector has been a strong magnet to students over 15 (and sometimes even younger). The previously nonexistent earnings opportunities – formal and informal –have reduced young people's incentives to attend school. (Opportunity costs have increased more in urban than in rural areas, because rural areas have created fewer job opportunities and, as shown below, have paid lower wages.) Second, rising wage inequality and falling incomes have pushed many families into poverty, forcing them to rely on their school-age children to help them in agriculture (primarily in rural areas) or other income-generating activities. Because of such pressures, children may have dropped out of school altogether. Third, because of increased violence, safety considerations may have influenced some families to reconsider having their children attend school – a factor that may be particularly important in suburban areas and for children attending multishift schools. Finally, the transition from communism may have reinforced traditional beliefs that women should stay home, beliefs that might have encouraged girls to drop out of school.

At the same time, countervailing forces at work in the labor market may have helped make participation in education more attractive. Above all, research shows that in many transition economies there has been an increase in the rate of return on investment in education (see Orazem and Vodopivec 1995, for the evidence about Slovenia; Norkoiv *et al,* 1998, for evidence about Estonia; and Rutkowski, 1996 about other European transition economies). There is not enough data to study changes over time in returns to education for Albania, but by 1996 the returns to education were generally low, giving students little incentive to continue with their schooling. It is true that in Albania as elsewhere, highly educated individuals are under-represented among the unemployed, suggesting that they are less likely to lose a job or to have trouble finding a job (see table 2.13), but school participation rates still continue to fall.

In our empirical analysis, we test the validity of these hypotheses by formulating and estimating a reduced-form model of participation in upper secondary school (participation by students 16 -19 years old), based on data from Albania's 1996 Employment and Welfare Survey. We formulate a binary variable for "attending school" and postulate that it is a function of the opportunity costs of schooling (a demand factor) and the quality of education (a supply factor), as well as of other variables that affect school attendance.[7] Of course, opportunity costs and quality of education are not easily quantifiable variables. For lack of better data, we proxy the opportunity costs of schooling by two variables: the urban dummy variable, separating urban and rural areas (undoubtedly, job opportunities are much better in urban areas than in rural ones, as discussed below), and the distance to the center of the commune, representing the costs of transportation to work. Quality of education is proxied by the number of unqualified teachers in the district (we do not have school-level information).[8]

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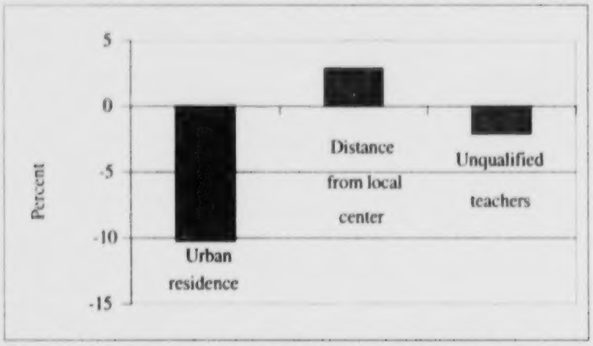
[7] The conceptual framework for this approach is utility maximization on the part of the student, amended by variables accounting for family circumstances. The student chooses the level of education that maximizes lifetime earnings net of schooling costs. Moreover, the framework allows for individual- or school-level factors to affect the benefit/cost tradeoff. For example, schools vary in quality, a variation that may well be reflected in labor market outcomes, thus affecting the tradeoff.

The results of the *probit* model of school attendance are presented in table 2.14. The variables we were most interested in – the urban area dummy, the percentage of non-qualified teachers, and the distance to the center of the commune – are all significant and of predicted signs (the first two are negative, the third positive, as Figure 2.9 shows). The results thus show that, *ceteris paribus*, the likelihood of attending an upper secondary school is less:

- for students living in urban areas or for those living closer to local centers – that is, for students with greater opportunities for employment/earnings and hence higher opportunity costs for attending school, or
- for students attending schools with a higher percentage of non-qualified teachers. In other words, the quality of education also influences school attendance.

From the insignificance of the parameter estimate of the "male student" variable we can conclude that girls are no more likely to stop going to secondary school than boys, meaning ideology safety considerations have not created gender differences in school attendance.

Figure 2.9 How selected variables affect the probability of attending Albania's upper secondary school, 1996*



Note: *Shading above the baseline means increased likelihood that young people attend upper secondary school; and shading below the baseline means reduced likelihood of attendance. See text and table 2.14 for additional explanations.
Source: Calculations, based on estimates from table 2.14.

In conclusion, economic considerations strongly influence students' decisions about attending upper secondary schools. On the demand side, the results show that the higher the opportunity costs of attending the school, the lower the probability of attendance. On the supply side, the results show that the lower the quality of education, the less likely students will to attend school.

The results suggest two policies to correct the dramatic drop in upper secondary enrollment rates in the 1990s. First, *providing scholarships and other forms of support to students from poor families,*

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[8] In a similar vein, Behrman and Birdsall (1983) use the average schooling of teachers in the area where an individual went to school as their measure of the quality of schooling.

by reducing the opportunity costs of their education, would increase their demand for education. Second, *improving of the quality of education would also attract more students to schools.* It is essential to improve the quality of education – for example, by better selecting and motivating teachers, by making the curriculum more relevant to today's labor market, by providing more and better teaching materials, and by providing better maintenance of facilities and equipment, to improve the learning environment.[9]

Returns to Education and Participation

Incentives to participate in education include the quality of education, but they also include adequate returns to education. How profitable is investment in education? Next we estimate both private and social rates of return to education – that is, returns from the viewpoint of both an individual and society (we use data from Albania's 1996 Employment and Welfare Survey).

How do we define and calculate the returns to education? Education is an investment that produces returns such as higher wages. Those returns can be weighed against the costs of education, which include both forgone earnings and the direct costs of schooling. To calculate private returns, we consider only private benefits and costs. For social returns, we consider not only private costs but also social costs, such as cost of providing public education services.[10]

We define *private returns* to education as the rate of return that equalizes the present value of the benefits from additional schooling with the present value of the costs associated with it. The private benefits of schooling are the premium in higher wages associated with different levels of education. The benefit from basic education, for example, is the lifetime difference in earnings between those who finish basic education and those who attend no school at all. When schooling is provided free of charge, the individual's forgone earnings during the course of study are the only private costs. In calculating social returns, we added to the private costs the direct costs on education in public expenditures.

The two methods we used to calculate private returns in Albania for the year 1996 – the earnings function and the short-cut method – both yielded similar results. To estimate the so-called *earnings function*, we regressed individuals' earnings (in their logarithmic transformation) on different levels of education and control variables (table 2.15). Levels of education were represented by a series of dummy variables, with one group excluded: individuals who have completed basic education. The other computation method, the so-called *short-cut method* (Psacharopoulos, 1995), is based on average earnings by level of education. The earnings function estimates show a flat age-earnings profile – that is, higher age is not associated with higher earnings – which justifies use of the short-cut method.

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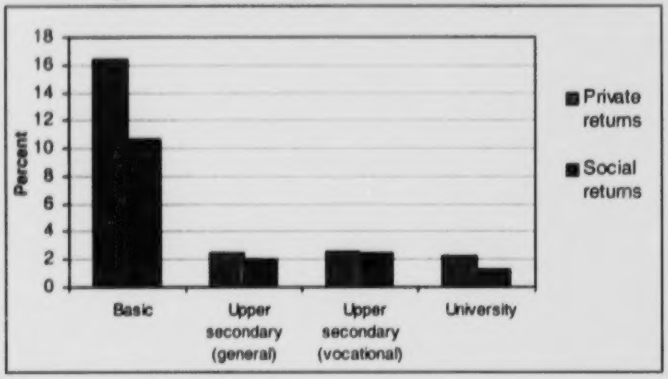
[9] For a more detailed discussion of results form this probit model, see Palomba and Vodopivec (2000).

[10] In principle, the calculation of social returns should also include the social benefits of education: such so-called externalities as reduced crime, reduced risks from infectious diseases, and spillover effects of research. Little guidance exists on how to measure such benefits, so we refrain from doing so in this study. As a consequence, social returns are – by definition – lower than private returns.

Private returns are an estimated 13 to 16 percent for basic education, 2 to 4 percent for upper secondary education, and only about 2.5 percent for tertiary education (table 2.16 and figure 2.6).[11] Social returns are lower: about 11 percent for basic education, about 2 percent for upper secondary, and 1 percent for tertiary education. Returns to post-basic education in Albania are positive, but quite low.

Figure 2.10 Returns to education, 1996*



Notes: *Based on the short-cut method (see text).
Source: Table 2.15.

Keep in mind that both private and social returns to education are underestimated. Private returns are underestimated because not all gains from education are reflected in earnings. Evidence from other transition economies shows that people who are more educated are at advantage when it comes to finding a job (when unemployed), avoiding being laid-off, and changing jobs without an intervening spell of unemployment – the advantage largely not reflected in higher wages.[12] Social returns, which reflect also direct public expenditures on students, are underestimated because they do not take account of education's spillover effects – on promoting the institutions of civil society, improving social equity, strengthening national cohesiveness, lowering crime rates, and so on.

Estimated returns to education are, except for basic education, extremely low compared with other countries, such as the low- and middle-income countries in the Europe, Middle East and North Africa region (see table 2.16). Several factors may have contributed to such results. First, the Albanian labor market still functions under peculiar circumstances. Privatization has proceeded slowly, and poor infrastructure and an unstable political environment have constrained economic growth, so more educated Albanians have fewer opportunities to exploit. Presumably returns to education will increase as growth and economic opportunities return. Second, estimated returns to education reflect the quality of education – and the current workforce was educated primarily under the socialist system, where poor quality of education resulted in commensurately low gains. Third, we cannot exclude selection bias because data from Albania's 1996 Employment and Welfare Survey oversampled the recipients of social assistance, who may differ from the general population in unobservable characteristics that are reflected in lower estimates of education parameters.

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[11] We assumed 3 years of forgone earnings to calculate returns to basic education.

[12] See the discussion about the structure of unemployment above, as well as, for example, evidence on Slovenia in Orazem and Vodopivec (1997), and on the Czech Republic in Sorm and Terrell (1999).

Other estimates of the earnings function are of interest:

- The insignificance of age dummies shows that age – a proxy for experience – is not associated with increased earnings.
- Women are paid 19 percent less than men.[13]
- Jobs in urban areas command 8 percent more in earnings than jobs in rural areas.
- There are no significant earnings differences among industries (in contrast, such differences are often found in other countries).
- Education sector as a whole has a negative sign, but the coefficient is insignificant. But teachers' relative salaries have a local maximum in 1996 (see below), and teachers' pay may have been significantly lower than pay for other otherwise identical workers for other years in the 1990s.

In summary, investments in education yield substantial returns to basic education, but returns to post-basic education are quite low. This is not surprising, considering that the Albanian labor market is still not fully developed, and that most of the workforce has been exposed only to poor quality of education under the socialist regime. The poor quality of education especially affected returns to post-basic education, where skills in critical thinking and creativity – the skills not taught in Albanian education – are of more importance. As the quality of education improves, one can reasonably expect investments in Albanian education to become more profitable.

Key Issues

Trends in enrollment rates tell us about access to education and suggest important issues for education policy and the financing of the sector. Falling enrollment rates at all level of schooling indicate worsening access to education during the 1990s. Causes vary by level of education, leading to different implications for policymaking and financing:

- In basic education (primary and lower secondary schools), a shortage in financial resources has adversely affected both the demand for, and the supply of, education, but the latest seems to be the main cause of decreasing participation amongst young cohorts.

- At all other levels of schooling, variations in access seem to mainly depend on changes in demand, which are driven by the opportunity costs of attending school, by returns to education, and by the quality of education. Economic considerations strongly influence student decisions about attending of upper secondary schools: *the lower the quality of education and the higher the opportunity costs of attending the school, the lower the probability of school attendance.*

Returns to basic education are substantial, but returns to post-basic education are quite low, probably because the quality of education at these levels still reflects achievements under the socialist regime. The government should try to improve the quality of education to make investments in education more profitable and thus improve students' incentives to attend school.

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[13] The gender earnings gap is pervasive (for example, Norkoiv *et al*, 1998, report 29 percent gap for Estonia in 1995), but it is impossible to say whether the gap is the result of discrimination, without further analysis.

During the transition, Albanian schools have not been equally accessible to all groups in the population. Students in rural areas had less access to education (except for basic education) than students in urban areas and those from low-income families had received less resources than those from high income families, especially for pre-primary and tertiary education. (Girls' relative participation rate in schools did not decline during the transition.) To stimulate rural enrollment, the quality of education in rural areas must be improved (for example, by providing better trained teachers), and more money should be devoted to scholarships and other support for students from poor families. To help children of pre-primary age who are currently left behind, we agree with recommendations of UNICEF (UNICEF 1998, pp. 67-71) that the government may – instead of promoting higher participation in pre-school – consider other measures such as nutritional and health programs. Moreover, the government may want to consider requiring tuition from tertiary-level students from richer families.

3 Financial Resources for Education and Public Financing

How much does Albania's government spend on education? Is education a priority for national authorities? Are available resources spent efficiently? To answer these questions, we have to consider that public spending on education depends on a country's spending capacity (national income), the government's involvement in the economy (total public spending), the size of the education sector (including the number of students), and the type and cost of resources used (such as teachers, schools, and classrooms). In this chapter we examine public finance of education in Albania and focus, in particular, on:

- Aggregate public resources spent on education relative to national income and to the size of the public purse.
- Public resources spent on education relative to the number of students.
- The deployment of funds across different uses within the sector.

Aggregate Educational Spending: Education as a Low Priority

Albania's economic transition has led to significant declines in national income and in financial resources available for education. In 1990, public spending on education came to 714 million of leks; but, by the end of 1998, it was only 464 million in real terms, a decrease of about 35 percent (table 3.1).[14]

A better indicator of how much the financing of education has changed is *public spending on education as a percentage of gross domestic product* (GDP). This indicator takes into account the country's spending capacity, showing whether education is regarded as a "luxury good" or a "basic need". As income falls, spending on a basic necessity is expected to rise in relative terms, while spending on a luxury good is expected to decrease. Except for the three years of 1990, 1991, and 1995, public spending on Albanian education as a share of GDP has steadily decreased over time (see table 3.2 and figure 3.1). Public spending as a share of GDP fell from 4 percent at the beginning of the transition in 1989 to a mere 2.8 percent at the end of 1998; at the same time, real income in 1998 was similar to that in 1990 (table 3.2). Does this mean that Albania consider education a luxury? Is this pattern different from other transition economies?

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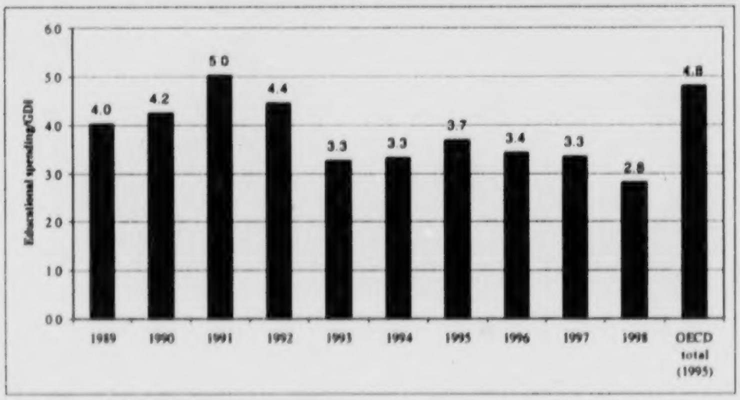
[14] Throughout this analysis, nominal variables are deflated by the GDP deflator. Therefore, price changes relate not only to the price level for educational service only but to the general (GDP) price level. In so doing, we assume that costs in public spending on education are measured in terms of national income forgone, so that the use of the GDP deflator seems justified.

Figure 3.1 Public spending on Albanian education as a share of GDP, 1989-98

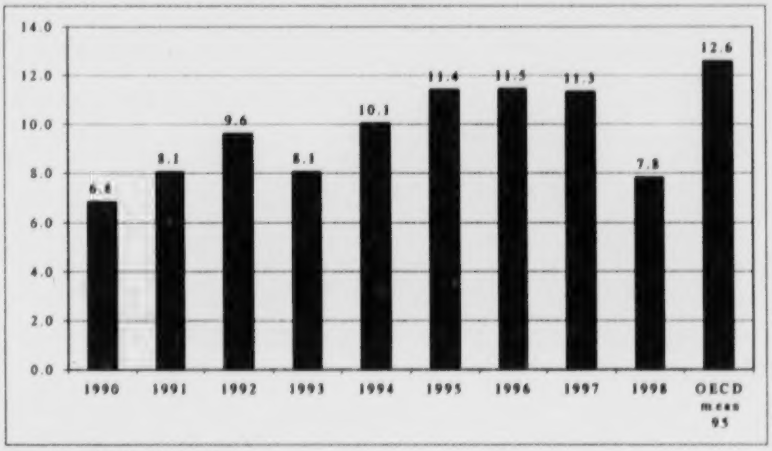


Source: Based on authors' calculations.
Note: OECD total is calculated considering the OECD area as a whole.

Educational spending as a share of GDP has been lower in Albania than in other countries in transition. It has been below the average for the Eastern Europe and Central Asia (ECA) region, and well below such neighbors as the Republic of Macedonia (see table 3.3). The decreasing public commitment to education with spending being cut back disproportionately as GDP falls and more than in other economies in transition suggests that education in Albania is indeed being treated as a "luxury good".

But, what priority has education received as a part of the public budget? Is low educational spending the result of limited fiscal resources or is the government reducing its support to the sector? The value a government assigns to education is reflected in *spending on education as a share of total public spending*. In Albania, this indicator generally increased between 1990 and 1994, remained stable from 1995 to 1997, before dropping in 1998 (figure 3.2 and table 3.2).

Figure 3.2 Public spending on Albanian education as a percentage of total public spending, 1991-98



Source: Based on authors' calculations.
Note: OECD mean is calculated as the unweighted mean of OECD national values

In one sense, this may suggest a more encouraging picture about education as a priority, but easy conclusions in this field are often misleading, and considerable circumspection is necessary in using these data. In particular, the transition to a market economy requires a radical redefinition of the role of government and the structure of the public budget. The number of State functions are in general reduced and relatively more emphasis is given to spending in social sectors. But, if as in Albania, the number of areas in which the government is involved decreases, while the share of public spending on education remains stable, then this means that education is granted less importance than other sectors. In this sense, the education's stable share of total public spending in Albania does not signal more emphasis on education; it indicates a scarce government's commitment to the sector.

International comparisons reinforce the conclusion that education has not been a priority for Albanian authorities. The share of total public spending going to education is, for example, lower in Albania than the mean for OECD countries (see figure 3.1).

What might be the reasons for Government's decreasing commitment to financing education? There are several; in fact, the amount of public resources devoted to education depend on a number of different factors.

First, school participation rates are crucial to explain the low commitment to financing education in Albania. The differences in spending patterns between Albania and, for instance, OECD countries can be partly attributed to low enrollment rates. If enrollment profiles in Albania were similar to those of OECD countries and other variables, such as cost per student and school-age population, are held constant, then spending as a percentage of GDP in Albania would increase 1.6 percent in 1997 (see figure 3.3). Adding that to the 3.3 percent actually spent would bring total Albanian educational spending for the year to 4.9 percent of GDP, which is closer to the 5 percent for OECD countries . Therefore, one reason Albania's government spending on education is so low is that enrolment rates are low.[15]

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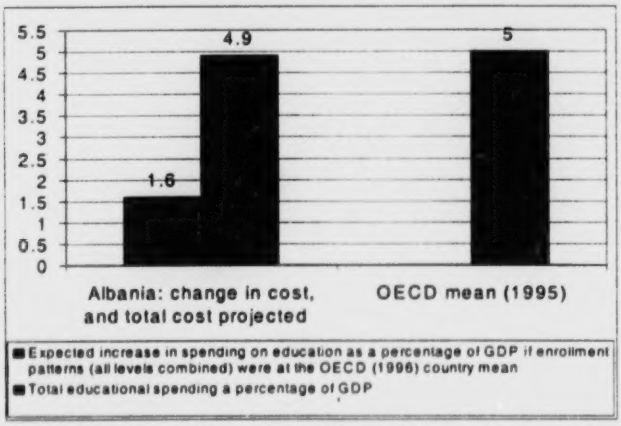
[15] For a discussion of how these estimates have been calculated see the technical appendix. Data on public spending on education as a percentage of GDP for OECD countries refer to 1995; this is the latest year for which data are available (OECD, 1998, p. 81).

Figure 3.3 Spending as a percentage of GDP if average enrollment rates (all levels) in Albania were as the mean for OECD countries



Notes: For source and discussion of these estimates see the technical appendix. OECD mean is calculated as the unweighted mean of OECD national values.

Secondly, spending on education also reflects the relative proportion of young people and the cost per student. Specifically, given the higher proportion of young people in Albania compared to OECD countries (in 1995, 46 percent of Albania's population was aged 5-29 contrasted with an average of only 35 percent in the OECD countries in 1996), previous calculations suggest that the Albania's low educational spending is mainly determined by a particularly low spending per student. Indeed, the cost per student is a crucial variable in examining the financing of education. How much does Albania spend per student? How has this changed over time? What can we deduce from recent trends?

What Educational Spending Per Student Reflects: System's Flexibility and Government Priorities

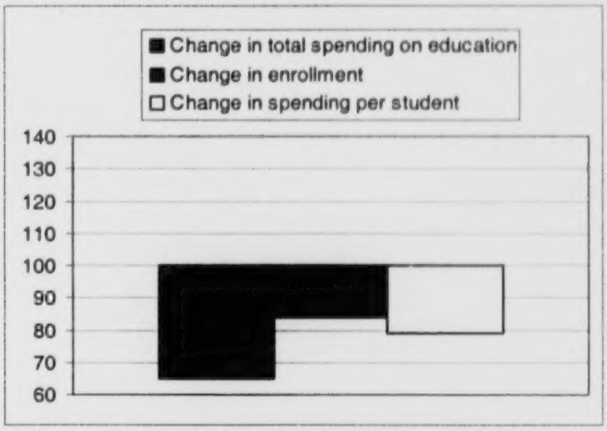
Educational spending per student can be used to measure a range of different phenomena. First, it can be used as a measure of the flexibility of the education system, namely its ability to adapt to change. For example, in periods when school enrollment falls suddenly, unit costs rise because the numbers of staff, schools, and other institutional arrangements cannot be expected to adjust instantaneously. In that sense, spending per student reflects the *educational system's flexibility* in using resources and its effectiveness at adapting to rapid change. Information about spending per student also tells us how resources are distributed across different levels of education, and the relative costs of providing education at each level. In that sense, it reflects the government's priorities and the relative *emphasis placed on education at different levels.* These aspects are critical to analyzing the financing of education.

Flexibility of the education system

Real educational spending per student has been declining during the transition. In 1990, Albania spent 780 leks per student; this has been the highest level throughout the 1990s, and by 1998 real spending per student had fallen to 614 leks (table 3.4).

The lower spending per student is not the result of higher enrollment but the consequence of a sharp reduction in total spending on education. This can be seen in figure 3.4 which compares changes between 1990 and 1998 in enrollment, total education spending, and spending per student. In this period, enrollment decreased, but real spending on education decreased much faster, so leading spending per student, in real terms, in 1998 to be 21 percent lower that in 1990.

Figure 3.4 Changes in total spending on education, enrollment, and educational spending per student in 1998
(1990=100)



Source: Calculations from data provided in the statistical appendix

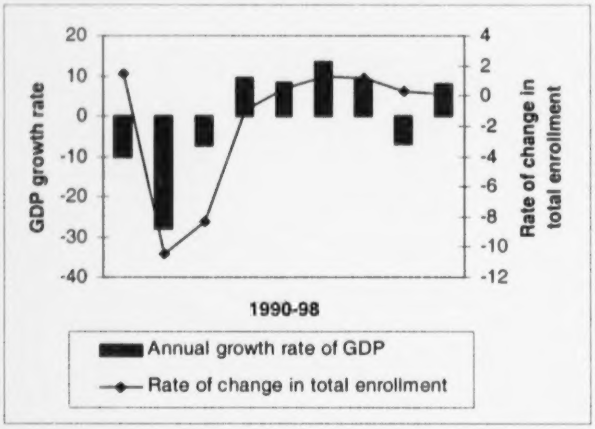
A good indicator of current changes in the available funds per students is certainly *spending per student relative to per capita GDP*; this measures per capita educational spending relative to the spending capacity of the country (table 3.5).

If spending per student relative to per capita GDP is used as a measure of the flexibility of the educational system, the evidence (see table 3.5) shows that the Albanian education system initially found it difficult to adapt to the sharp decrease in enrollment that occurred in 1991 and 1992. Educational spending per student relative to per capita GDP increased immediately after the transition, when enrollment decreased (in 1991 and 1992), then decreased and stabilized at about 14-16 percent of per capita GDP. It took, therefore, three years for the system to adjust to changes in enrollment.

Since 1993 the system has become more flexible with spending per student being stable as a share of per capita GDP (table 3.5). However, it should be noticed that enrollment in this period did not change as sharply as in the beginning of the 1990s, so there was less pressure to change. The ratio of spending per student to per capita GDP takes into account growth in national income, thus it can also be used to examine how economic growth is reflected in educational spending. Does recent economic growth in Albania translate into higher spending per student?

The relative stability of spending per student in terms of per capita GDP suggests that per student educational spending in Albania is positively correlated with per capital GDP. Therefore, increases (and decreases) in national income do translate into corresponding changes in per student public resources, implying that education is not being treated as a luxury good. But, is indeed education not a luxury good? Is this result in contrast with our previous conclusions? How can we make sense of this apparently contrasting results? We can reconcile these two conclusions if we return to the argument in chapter 2 that in Albania demand for education is affected by the economic transition. As a matter of fact, the only way for the relationship of per student spending relative to per capita GDP to be stable over time and for educational expenditures as a share of total GDP to fluctuate is for enrollment to be positively correlated with the rate of economic growth. Indeed, in Albania, this seems to be the case. When we plot, for example, the rate of economic growth together with changes in total enrollment a period later, as in figure 3.5, the two series nicely overlap. This shows, if anything, an extremely high degree of statistical correlation between the two series. Although we cannot manifestly argue from this for a specific casual relation, correlation is strong and certainly this is central to explaining current spending dynamics in the sector and the education system's flexibility.

Figure 3.5 Correlation between changes in economic growth and in enrollment rates, 1990-98

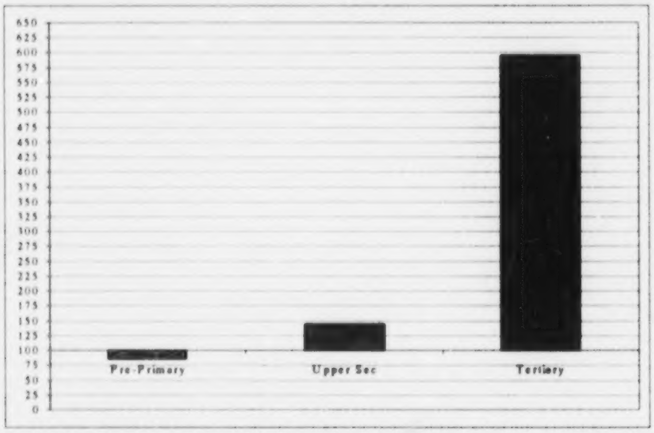


Government's priorities

Spending per student also tells us the relative emphasis given to different levels of education, and the implicit priorities of the government. What is the importance given to different levels of education in Albania? Is special attention paid to basic education?

Data on Albanian spending per student show a rather unequal distribution across different levels of education, reflecting both different government's priorities among levels and different costs of providing educational services at each level. In particular, spending per student is larger, the highest is the level of education. This is illustrated in figure 3.6 which shows spending per student at pre-school, upper secondary and tertiary level as a percentage of spending per student for basic education in 1998. In 1998 spending per child at the pre-school level was 85 percent that for basic school (which includes primary and lower secondary). In contrast, spending per student for upper secondary school was 1.44 times higher than at the basic level, and for the tertiary level spending per student was 5.96 times as high as for basic education (see also table 3.6).

Figure 3.6 Spending per student for various levels of education as a percentage of spending per student at the primary level (=100) in Albania, 1998



Source: Our calculations from data provided in table 3.6 of the statistical appendix

In most countries spending per student rises with the level of education, but the relative differences are greater in Albania than elsewhere, with tertiary education absorbing an unusually high share of per capita resources. This is evident from international comparisons presented in table 3.6. Relative spending per student in pre-primary and upper secondary school in Albania roughly reflects the OECD country mean, but that for tertiary education is far higher in Albania than in other comparable countries, and more than double the OECD country mean. The difference remains unusually large even if we allow for part-time students, in which case, per student spending for the tertiary education declines from 86,519 leks (table 3.4) to 58,948 leks per year (with each part-time student being weighted as one-half of a full-time student). Still, this is 4.07 times higher than spending per student for basic education and well above the average of 2.52 for OECD countries (table 3.6). Clearly, the relative cost of providing tertiary education in Albania is very high, and international standards provide a powerful benchmark for this conclusion. Of course, cross country differences in unit costs of education depend on how educational institutions are organized and on how financial resources are allocated among different uses, two issues we consider in the next section.

How is the Educational Pie Cut? Functional Spending and Economic Efficiency

Education is affected by total and per student spending but also by how spending is allocated among different uses. How funding is allocated can influence, for example, the quality of instruction (for instance, through teachers' salaries), the learning environmental (through allocations for teaching materials), and in general the level of efficiency in using financial resources. In particular, an allocation is economically "efficient" (or cost efficient) when it minimizes the cost of producing a given output, given existing prices and technologies. Unfortunately, we do not know the optimal combination of resources to educate each student, and we cannot, therefore, straightforwardly apply the concept of economic efficiency to education. In addition, data on allocations are often unavailable and not always reliable. Without a "rigorous" definition and a clear measure of efficiency, it may then make sense for us to use international standards as a possible benchmark. This is an indicator of what can be considered at least a "fairly good" common practice. Given these limitations, in this section we confine our attention to only two issues. First, we discuss how resources are allocated between recurrent and capital expenditures; this helps us to illustrate how changes in the amount of financial resources available for the sector and in input prices have affected the composition of the education budget. Second, we examine how recurrent expenditures in Albania compare with those of other countries and whether financial resources are "efficiently" allocated among alternative uses.

Recurrent and capital expenditures in education

The broader classification of educational spending is certainly that between recurrent and capital or investment expenditures. Recurrent expenditures are financial outlays for resources used each year for educational operations. Capital or investments expenditures are those in assets that last longer than a year (including expenditures on the construction, renovation, major repairs of buildings, and domestic contributions to development projects of international donors). Their analysis allows us to bring out a number of important aspects in the financing of Albanian education.

Total spending on education in Albania has varied over time but the relative proportions of recurrent and capital spending have remained fairly stable. Since 1990, recurrent spending has generally ranged between 90 and 94 percent of total spending, with a peak in 1992 of 96 percent and a low of 88 percent in 1998 (see table 3.7). These proportions are close to international standards as reflected, for example, in the OECD country mean for 1995 (see table 3.7), where 90 percent of total expenditures went to recurrent spending (OECD 1998, p. 120-130).

However, real spending on education has been declining during the transition, and in recent years real recurrent spending has suffered more than capital investment. In 1998, for example, recurrent expenditures were only 64 percent of their real value in 1990 (see table 3.8). Capital expenditures, on the other hand, have been gradually recovering from an initial decline, and by 1998 they amounted to 78 percent of their level in 1990 (table 3.8). This may in part be due to the need of repairing buildings damaged during the transition and the recent civil unrest in 1997.

The real increase in capital expenditures partly reflects the government's commitment to co-finance international investment with donors. In 1998, for example, Government's co-financing of donors' investment added up to 34.3 percent of total public investment expenditures (see table 3.9). Clearly, this suggests that international agencies have played an important role in redirecting national priorities in Albanian education. But, does this investment effort equally cover all levels of education? Is special emphasis given to investment on basic education?

Investment spending in Albania appears to be concentrated on basic education, but as a matter of fact investment at this level has not been a priority for Albanian authorities.[16] In 1998, for example, investment on basic education represented the greatest share of investment spending with almost two third of total capital spending (table 3.9). But, the share of capital expenditures relative to recurrent spending for each level of education did not vary much among pre-primary, basic, upper secondary and tertiary education (table 3.9), suggesting that no special priority has be given to capital investment on basic education.

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[16] Since data on government co-financing are not available by level of education, this discussion only refers to government investment spending and excludes contributions for co-financing.

How recurrent expenditures are allocated

Recurrent expenditures eat up most of the education budget, and looking at how they are divided among different uses provides insight into the use and cost of different resources, as well as the level of economic efficiency characterizing the sector. Recurrent expenditures generally fall into two broad categories: (1) *staff compensation*, which account for the largest share of educational spending and include both teaching and non-teaching staff; and (2) *other expenses*, including teaching materials, maintenance, welfare services, and textbooks. Unfortunately, time series data for these expenditures are not available in Albania, and we cannot evaluate the effect of price liberalization and changing price on the use of different factors. Thus, we limit our analysis to examining Albanian educational expenditures in 1998 and to comparing the composition of recurrent spending with spending elsewhere.

Staff compensation in Albania accounts for the largest share of recurrent expenditures. In 1998, 83 percent of recurrent spending went to wages (table 3.11, table 3.10 for absolute values). The other 17 percent was divided fairly evenly among teaching materials, welfare services, maintenance, and scholarships. In particular, welfare services, which really belong to social protection and not education, absorb on average over a fifth of non-staff resources.

The proportion of current expenditures going to salaries is much higher in Albania than elsewhere (table 3.12). In 1995, for example, OECD countries targeted an average 75 percent of their recurrent expenditures to salaries, 8 percentage points less than in Albania. The difference is even greater when Albania is compared with selected countries in transition (UNESCO, 1997). For example, spending on wages in Bulgaria, the Czech Republic, Estonia, Hungary, Lithuania, FYR Macedonia, and Slovenia is, on average, only 66 percent of total current spending, compared with 83 percent in Albania (tables 3.12-3.13). Is this difference a symptom of inefficiency in the use of resources?

Differences in the composition of Albanian recurrent spending with respect to other countries may reflect a number of different factors, and are not necessarily a symptom of potential inefficiencies. All other things being equal (such as student-teacher ratios, relative staff salaries, average class size, and other indicators of resource intensity use), international variations in the composition of recurrent expenditures may reflect, for example, differences in relative domestic prices or different financial constraints. The use of international comparisons must control for these factors.

In Albania, the high share spent on wages is probably attributable to a very "tight" educational budget and not to broad economic inefficiencies. For one thing, real financial resources going to education have been steadily decreasing in recent years (see previous discussion). For another, real resources are used intensively (student-teacher ratios are high, for example), and pay for them is very low (see our discussion in next chapters). This suggests that Albanian education is subject to a severe budget constraint indeed. In this setting, inadequate financing has induced administrators to reduce spending on "unprotected" or "no-immediately necessary" items, such as nonstaff spending. In other words, the severe budget constraint has led to the peculiar budgeting rule of paying for essentials factors such as staff first, with other inputs being purchased only if there are financial resources remaining. As a result of such a budgeting rule, salaries can be a disproportionally high share of total recurrent expenditures.

The current tight financial constraint is not necessarily saving public money; it is simply transferring some costs to future generations. Insufficient budgeting translates in low long-term spending, and this affects the functioning and future development of the education sector. Low spending on maintenance, for example, damage the average quality of buildings, and will imply higher costs in the future; in fact, this amounts to borrowing today against the future. In that sense, low current spending simply mean heavier spending tomorrow.

Albania's tight education budget is hurting not only future generations, but is likely to cost to the current generation as well. In other countries, reducing the government commitment to finance education has often meant to increase private coverage of educational costs. Unfortunately, we cannot investigate the private costs of accessing education in Albania for the lack of data, but international experiences do suggest that the lower public financing usually implies shifting costs to families. Indeed, results from the 1996 LSMS presented in table 2.11 suggest that reduced participation in school is partly attributable to low family's income, therefore to education's greater private costs.

Issues Raised by Public Underbudgeting for Education

In recent years, educational spending in Albania has sharply decreased bringing out the low government's commitment to education. Spending has fallen so low that education appears to be regarded as a luxury good rather than a basic need. Certainly, limited financial resources have had the effect of keeping the cost per-student low, even as enrollment has fallen; however, in view of the predictable developments in the sector so tight a financial constraint may have many undesirable effects, with important implications for policy-making:

- First, underbudgeting for the education sector will make it difficult to cope with future increases in enrollment and these are not merely hypothetical. In the medium term, economic growth is likely to increase the demand for education, especially for higher levels of education, but these are also the most expensive in terms of per capita costs. It is, therefore, important for Albania to redesign sustainable financing policies for the education sector.

- Second, the current tight financial constraint has obliged to budgeting only "for the essential", or for present needs, at the expense of investments with no immediate return (such as maintenance and teachers training); this policy will reduce the value of physical assets and of human capital, jeopardizing the current and future quality of education.

- Third, present low expenditures on education do not necessarily represent savings for society. Insufficient budgeting is simply transferring long-run spending to future generations and is likely to translate in higher private costs for current education. This kind of intergenerational redistribution of costs is undesirable, and radical reform of the education budget is clearly in order.

Limited financial resources have affected the budget structure, the distribution of spending among various uses, and the cost of educational services; but these costs reflect also the actual use of real resources. Among others, the cost of education depends on such factors as the ratio of students to teaching staff, teachers' salaries, the number of teaching hours, the size of classes, and how real resources are in general combined to provide education. In the next chapters we turn to the analysis of these factors.

4 How Efficiently Educational Resources Are Used

In previous chapters, we analyzed trends in access, participation, and equity and we reviewed the financial resources available to, and expenditures incurred in, education. In this chapter, we examine how efficiently various resources have been used to generate the product of education: learning. Communism was known for its overstaffing and inefficient use of other resources. Was that true also of Albanian education? What changes in student-teacher ratio and class size have resulted from transition reforms and the ensuing budget stringency? In particular, did the large reduction in number of students result in a commensurate reduction in resources used in education -- above all, in the number of teachers? What is the teaching load and how does it compare with the teaching load in other countries? Has the number of schools and classes been affected by the reforms of the 1990s?

In line with our goal of investigating possible cost reductions in education, we will emphasize technical efficiency – the intensity of the use of resources – and cost considerations in evaluating the observed practices and policies. But to look only on intensity of the resources use and costs in an evaluation of educational efficiency is to ignore the whole purpose of education: learning. Measuring the output of any education system is challenging, let alone the one in Albania, for which no standardized achievement tests exist. We will try to gauge the output of Albanian education by two means. First, we will provide a glimpse into the black box of an Albanian classroom by reporting on methods of classroom organization and by reviewing the intensity of teachers' school-related activities. Second, we will report on the amount of time students devote to studying after school.

There are two problems in addressing issues of technical efficiency in education. First, the output cannot be precisely defined, so it can only be measured imperfectly. Second, the optimal mix of educational inputs cannot be determined. Educational leadership, staff consensus and cohesion, school and classroom climate, parental involvement, feedback, and reinforcement are some of the factors said to affect teaching effectiveness (Scheerens and Bosker, 1997) It is thus obvious that the optimal mix of factors and the underlying efficiency frontier cannot be precisely defined.

To judge the technical efficiency of Albanian education, we will therefore use to two kinds of comparisons. First, we will observe changes in the intensity of use of resources in the 1990s, to judge whether the system moved in the desired direction. Second, we will compare the intensity of Albania's use of resources, and other characteristics of Albanian education, with those found in developed economies.

We will first review the composition and use of human resources (teachers and other staff) and physical facilities in Albanian education. To deepen the analysis of efficiency we will focus on (1) costs and the intensity of the resource use, in terms of class and school size and student-teacher ratios, and (2) output, providing a glimpse into the black box of an Albanian classroom. We conclude with the discussion of issues raised.

Teachers Make the Difference

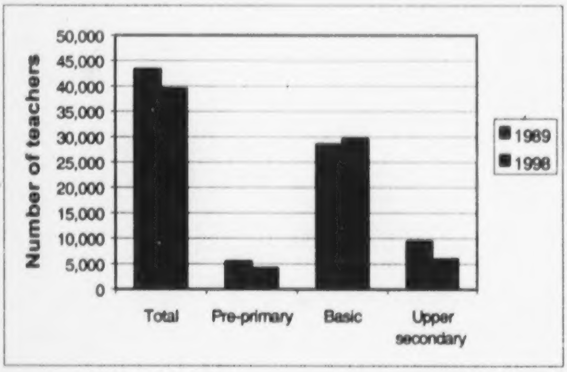
Human resources are of primary importance to education. Adequate facilities and a well-structured teaching environment are important, but it is teachers who really make the difference. There is also a compelling financial reason for focusing on school staff: the number of teachers and the level of teacher salaries are key determinants of the financial resources needed for education. Here we discuss trends in employment of teachers and non-teaching staff and examine staffing policies in Albanian education. How many teachers and other staff are involved in education, and what gender are they? How qualified and motivated are teachers? Motivation depends on salary policies, among others, so we review the structure of earnings, and trends in relative teachers' earnings during the transition. We also compare the level of teachers' obligations – inside the school and outside – with those of teachers in other countries. Finally, we describe training policies and working conditions for Albanian teachers.

Number and education of teachers

In the beginning of the 1998/99 school year, Albania's education sector employed 41,700 teachers and 4,700 non-teaching staff (table 4.1). Most of the staff, including teachers, were employed full-time, except in higher education, where 30 percent of the teachers were part-time. In basic education, substitute teachers were used occasionally (no statistics are available on their engagement).

The reduced level of student enrollment after 1991 was paralleled by a reduction in the number of teachers (table 4.1). From a high of more than 46,600 teachers in 1992, the number of teachers fell to below 42,000 by 1998. The decline was most intense in pre-primary and, above all, upper secondary education (figure 4.1). The number of upper secondary teachers decreased from nearly 10,000 in the early 1990s to below 6,000 in 1998. Except in tertiary education, the number of teachers in 1998 was below the peak of the early 1990s at all levels of education. During 1996-98, about 10 percent of the employees in education were non-teaching staff. Education employment as a share of total national employment was reduced to 4.3 percent by 1998 (table 4.2).

Figure 4.1 Decline in number of teachers in non-tertiary education, 1989/1998



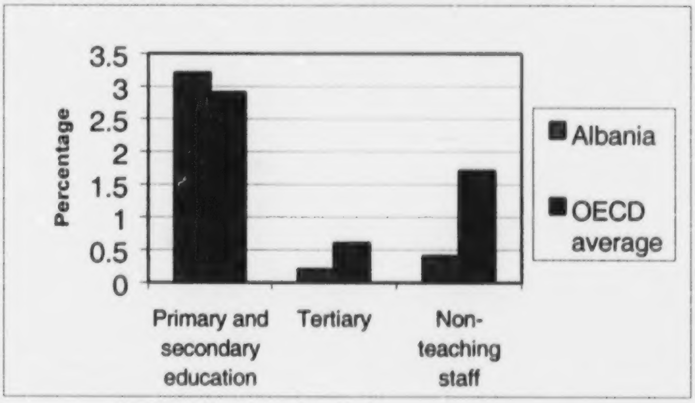
Source: Table 4.1

Generally, the reduced number of teachers was a response to declining demand for education and enrollment – except in vocational secondary education, where the closing down of vocational programs in rural areas in 1991-92 might have contributed to lower enrollment. Material taught at these vocational schools tended to be obsolete, so demand for vocational education was undoubtedly also reduced under the new incentives brought by the transition.

Educational employees as a share of total employment in Albania is considerably lower than in developed countries (table 4.2). There is a much lower percentage of nonteaching staff (educational, professional, administrative, and other support staff) in Albania – only 0.4 percent compared with an average 1.7 percent in comparison countries (figure 4.2).[17] This means that Albanian children have access to far fewer services from educational and professional support personnel than in developed countries. Fewer other (administrative, cleaning, maintenance) services were offered by school support staff, as well, and had to be provided by teachers themselves or not at all.

Teaching staff as a share of total employment is only slightly below average for developed countries. (Demand for teachers in Albania, as proxied by student enrollment as a percentage of the employed population, comes close to the average for comparison countries.) But there is a huge difference in the allocation of teachers by level of education. Albania has proportionately fewer higher education teachers and more primary and secondary teachers than developed economies do (table 4.2). In Albania, 6 percent of teachers work in higher education, in contrast with an average 15 percent in developed economies.

Figure 4.2 Education staff as a percentage of total employed population, Albania vs. OECD
(Albania, 1998 and OECD average, 1995)



Source: Table 4.2

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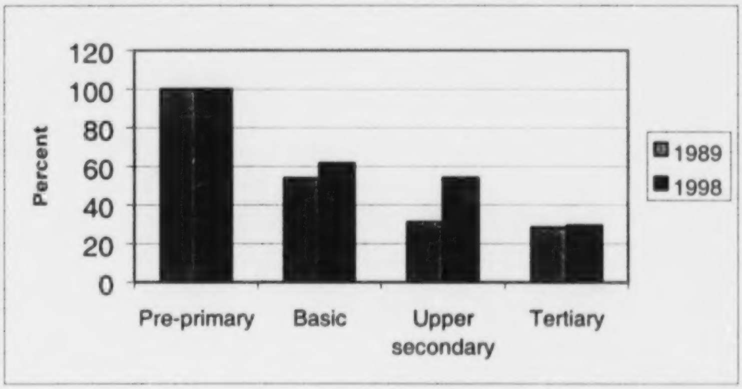
[17] Decision-making is much more centralized in Albania, so one could add employees in district education offices (District Education Directorates) to the number of non-teaching staff employed in schools to come up with more compatible data. Some of the services usually performed at the school level – such as book-keeping – are done at the district level in Albania. With this correction, non-teaching staff as a share of total employment would increase to 0.5 percent, which is still well below comparison countries.

Teachers' gender, age, and level of experience

Albanian education is dominated by female teachers. In lower levels of education the proportion of women is particularly high (figure 4.3). In pre-primary education, there are no male teachers, and at the upper secondary level teaching is split roughly equally between men and women. Only tertiary education is dominated by male teachers, and the proportion of female teachers there increased in the 1990s (table 4.3).

International comparisons show no major differences between the composition of teaching staff in Albania and those in developed economies, and women teachers clearly dominate in developed countries as well (table 4.4). Albanian teachers are somewhat older (the group over 50 is relatively more numerous than the one in comparison countries) and more experienced (table 4.5).[18] Experience comes with age, of course, and teachers tend to stay in education for their entire professional career. Older teachers may find difficult to implement changing curricula and new teaching methods. Attracting young teachers, among others by appropriate salary levels, is therefore an important task.

Figure 4.3 Percentage of women among teaching staff, 1989 vs. 1998



Source: Table 4.3

How qualified are Albanian teachers?

To assess the quality of education, we examined the percentage of teachers with higher education (table 4.6). A high proportion of teachers in basic education have less than a bachelor degree, which may indicate poor teaching. Moreover, many teachers do not satisfy the formal requirements for teaching set by the Ministry of Education, especially in lower secondary education, where roughly a third of the teachers do not meet formal requirements (table 4.7). The problem is more acute in rural areas, which have problems in attractive qualified teachers despite large salary bonuses (see below).

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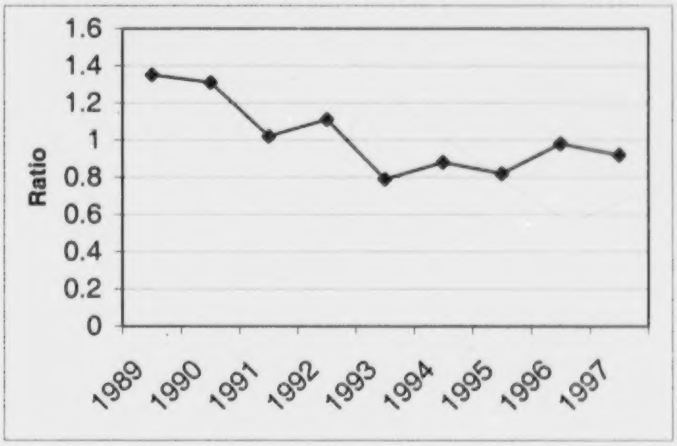
[18] Data reported were obtained through an Eighth Grade Teacher and Student Survey implemented for this study (see Section 4.4).

How well are teachers paid?

Under communism, teacher pay in all countries, including Albania, was traditionally very low, and the age-earnings profile was also low – that is, earnings did not vary greatly with age (this was common to all socialist countries – for the wage differentials in pre-transition Estonia, for example, see Norkoiv *et al*). During the transition Albanian teachers did not have the salary arrears some of their colleagues in other transition economies did, but their relative wages deteriorated greatly. In 1989, for example, the salary of a basic education teacher with 15 years of service was 35 percent above the public sector average; in 1997, it was 8 percent below the average (figure 4.4, and table 4.8).[19] Salaries dominate education costs, so declining relative salaries for teachers probably contribute to education spending's falling share of GDP.

Traditionally low variation in teachers' pay persisted through the 1990s. Starting in 1996, the value of experience increased somewhat, but it is still below the OECD average. As an incentive to work in rural areas, Albanian teachers can earn a bonus of up to 30 percent, which exceeds the bonus available in OECD countries. The salary of Albanian teachers expressed as a percentage of per capita GDP is below the comparable ratio for developed economies (table 4.9). For a primary teacher with no experience, for example, this ratio is 0.81 in Albania, but averages 1.0 for OECD economies. (The ratio is very low also in the Czech Republic and Hungary, the two transition economies for which we have comparable data.)

Figure 4.4 Albanian basic education teachers' salary after 15 years' experience relative to the average public sector salary, 1989-97



Source: Table 4.8

How attractive are teachers' working conditions?

The teaching load in Albania varies from about 800 hours of annual instruction in pre-primary schools to between 600 to 750 hours of instruction in secondary schools. That is comparable to the teaching load in developed economies (table 4.10). Other working conditions in Albanian schools are much worse. Teachers have to deal with an acute shortage of teaching materials and support services and often have to provide the materials and perform services such as cleaning themselves. Deteriorating buildings often lack basic amenities, including heating in the winter, and the unpleasant teaching environment often hinders learning.

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[19] There are no data on private wages, so the only available comparison is with the public sector.

Is an educational system in which salaries are low and falling and working conditions are unattractive sustainable in the longer term? For lack of data on teacher hirings and separations, it is hard to say whether a process of "adverse selection" has already started. One such a sign comes from the age and experience structure of teachers. Albanian teachers do seem to be older and more experienced than their counterparts in developed economies. Moreover, the decline in recent years of the percentage of teachers with higher education in rural areas also points in that direction. That situation is particularly critical in areas such as mathematics and foreign languages, where competition from business is keen. Falling relative wages may certainly lower teachers' morale. (A recent government decree raising public workers' wages – including teachers – will improve financial incentives of teachers but it will not increase their wages relative to other public sector workers.)

Deteriorating Physical Facilities

After examining the deployment of human resources in Albanian education, we now turn to another major input in education – physical facilities. Have changes in education in the 1990s affected the number of schools? How have cuts in real spending affected the construction and maintenance of school buildings? Based on preliminary school-level data generated by the School-Mapping Project, we were able to examine some characteristics of school buildings – including their age, how urgently repairs are needed, and some details about individual school districts.[20]

In the 1998/99 school year, there were 2,330 pre-primary schools in Albania, 1,815 basic schools, and 394 upper secondary schools (table 4.11). Most schools were in rural areas. Just as the number of students and teachers had declined since 1989, so had the number of schools (see figure 4.5). Mostly pre-primary schools (kindergartens, particularly in rural areas) and upper-secondary schools closed down. In 1998, there were only two-thirds the number of rural kindergartens that had been operating in 1989, and less than half the number of upper secondary schools. Only in basic education did the number of schools increase (in both urban and rural areas).

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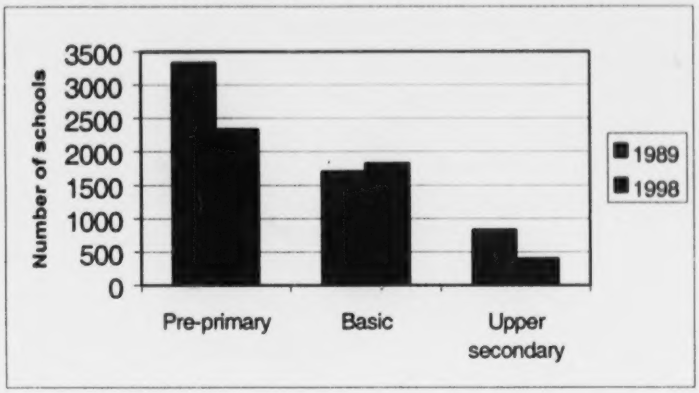
[20] This project, a mutual effort of foreign donors (including the World Bank), is directed by Mircea Enache from EMI SYSTEMS.

Figure 4.5 Change in number of schools, 1989/1998

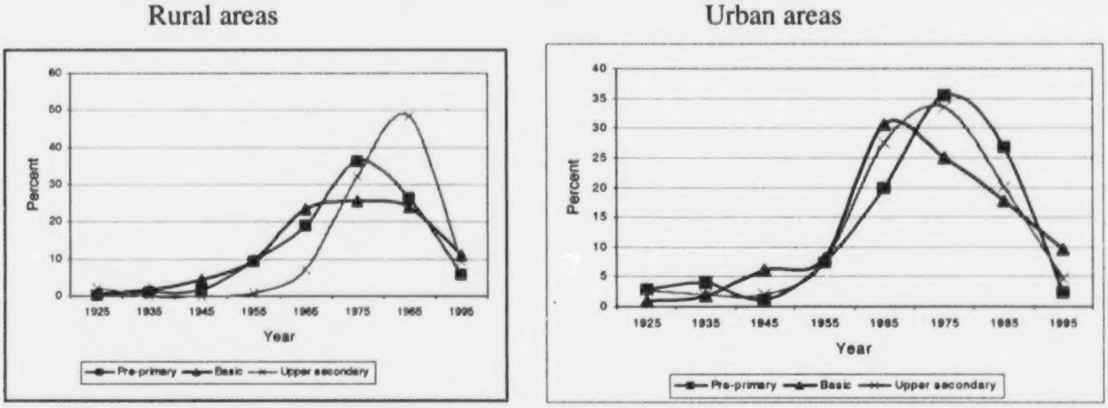


Source: Table 4.11

Schools' age and amenities

Most of Albania's schools date back to the 1960s and 1970s in urban areas and to the 1970s and 1980s in rural areas (figure 4.6). As a group, the basic schools in urban areas are the oldest; nearly half of them were constructed before 1970. Construction was most intense in the 1970s, a decade that produced the most new urban pre-primary and upper secondary schools and rural basic schools. In the 1980s, the emphasis in construction shifted to rural areas and to upper secondary schools. So schools in rural areas tend to be newer than those in urban areas.

Figure 4.6 Year of school construction, rural and urban schools


Rural areas

Urban areas

Source: School-mapping project, EMI SYSTEMS.

Although schools in rural areas were built later, they are equipped with fewer gymnasiums and laboratories, and many lack even bathrooms. In urban areas, 85 percent of pre-primary schools, 75 percent of basic schools, and over 95 percent of upper secondary schools have bathrooms; in rural areas, only 17 percent of pre-primary schools, 41 percent of basic schools, and 76 percent of upper secondary schools have bathrooms (Statistical appendix). Obviously, construction standards between rural and urban areas differ, but generally the quality of the amenities is very poor. Many of the bathrooms that do exist, particularly in rural areas, badly need renovation.

The story is similar for gymnasiums and laboratories. Few schools in rural areas have a gymnasium or a laboratory; except for upper secondary schools, over 60 percent of which are equipped with laboratories. The proportion of urban schools with both gymnasiums and laboratories is much higher, although there are also many urban schools with no gymnasiums. Casual observations suggest that the quality of laboratories is generally quite poor (Statistical appendix).

Fiscal stringency in the 1990s has also affected building maintenance. Over 80 percent of schools reported an urgent short-term need for rehabilitation (Statistical appendix). The urgency of reconstruction needs appears to be greater in urban areas, where the building stock is older.

The above analysis shows that many physical facilities in Albanian education are in dire need of reconstruction and maintenance. Many schools also lack basic amenities – and when provided, they are often of poor quality. To attract more students to school and to improve the quality of schooling, a strong investment in physical facilities is absolutely necessary.

How Learning Is Organized?

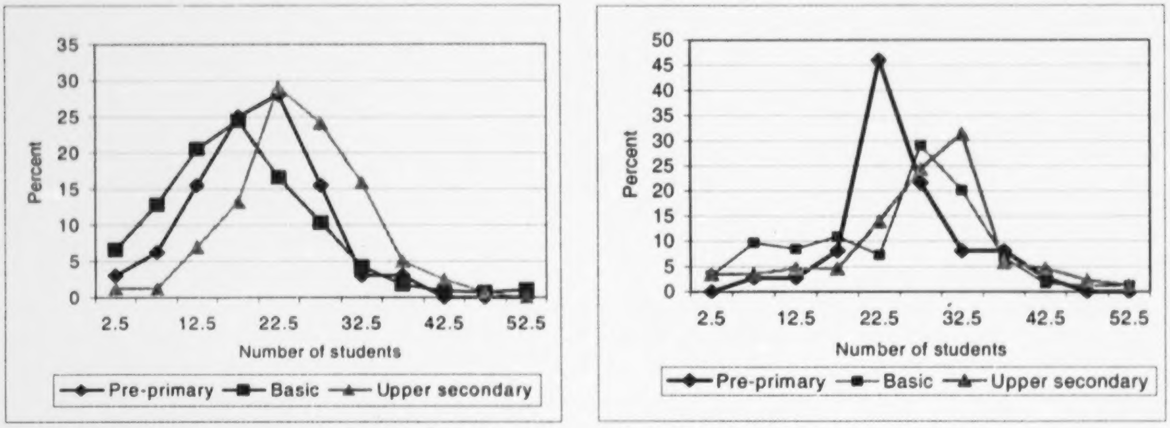
The number of students in Albania's education system was reduced by 15 percent in only nine years (from 1989 to 1998). How has change affected the organization of schools, the use of resources, the number of classes, class size, the student-teacher ratio, and school size?

Number of classes, class size, and shifts

Overall number of classes in Albania was reduced by over 30 percent, from 37,600 in 1989 to 26,200 in 1998 (table 4.12). Classes in all levels of education were reduced, but especially intensely in primary and upper secondary education. Changes in the number of classes differed profoundly between urban and rural areas. Schools in urban areas maintained or even increased the number of classes, while those in rural areas strongly reduced them. Cuts in rural areas account for the strong reduction of number in classes in both primary and upper secondary education.

Because the number of classes was reduced so much in the 1990s, class size increased despite the declining number of students (table 4.13). The average class size rose from 23.7 in 1989 to 28.1 in 1998. Class size decreased only in pre-primary schools, especially in urban areas. Classes are much larger in urban than in rural areas – a phenomenon related to limited pool of students that serve as a base for recruitment of students available to rural schools. The distribution of schools by class size in urban areas is more peaked-shaped on graphs than for rural areas, as figure 4.7 shows.

Figure 4.7 Average class size, by level of education, 1998

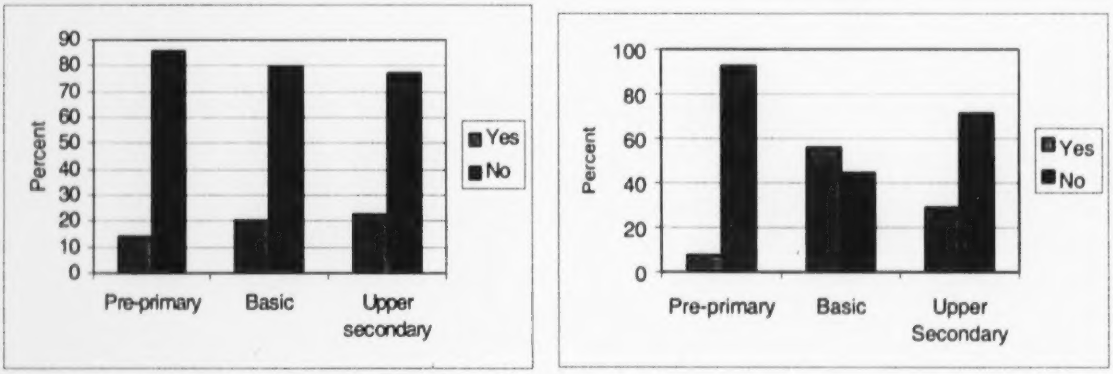


Rural areas **Urban areas**

Source: School-mapping project, EMI SYSTEMS.

As might be expected, multiple shifts are far more common in urban than in rural schools (figure 4.8). In urban areas, over half of basic schools and close to 30 percent of upper secondary schools operate with multiple shifts, compared with only 20 percent of rural schools. This suggests an intensive use of physical resources and promptness in responding to changes in enrollment.

Figure 4.8 Schools with multiple shifts, 1998
(as a percentage)



Rural areas **Urban areas**

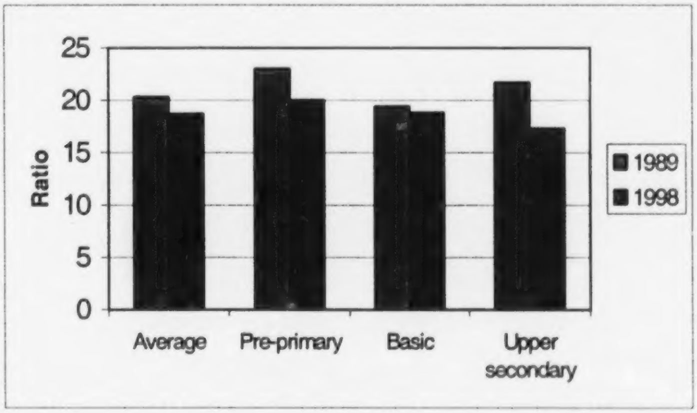
Source: School-mapping project, EMI SYSTEMS.

Student-teacher ratios

The student-teacher ratio is perhaps the most familiar indicator of intensity of resource use in education. Measuring the quality of education is a problem, and this ratio is often used as an – obviously imperfect – indicator of the quality of education. Lower student-teacher ratios can often be achieved only by increasing the costs of education. This trade-off between potential benefits to students and increased costs should be kept in mind when evaluating trends.

During the 1990s, both the number of students and the number of teachers in Albania were reduced, but the number of teachers was reduced less, so the overall student-teacher ratio decreased (figure 4.9), as it did in most transition economies (UNICEF, 1998). The student-teacher ratio dropped from 20.3 in 1989 to 16.1 in 1992, then climbed back up to 18.7 in 1998 (table 4.14). Similar trends prevailed at all levels. Nonetheless, even in 1998 the student-teacher ratio in Albania remained above the average for OECD countries at all levels (see table 4.15).

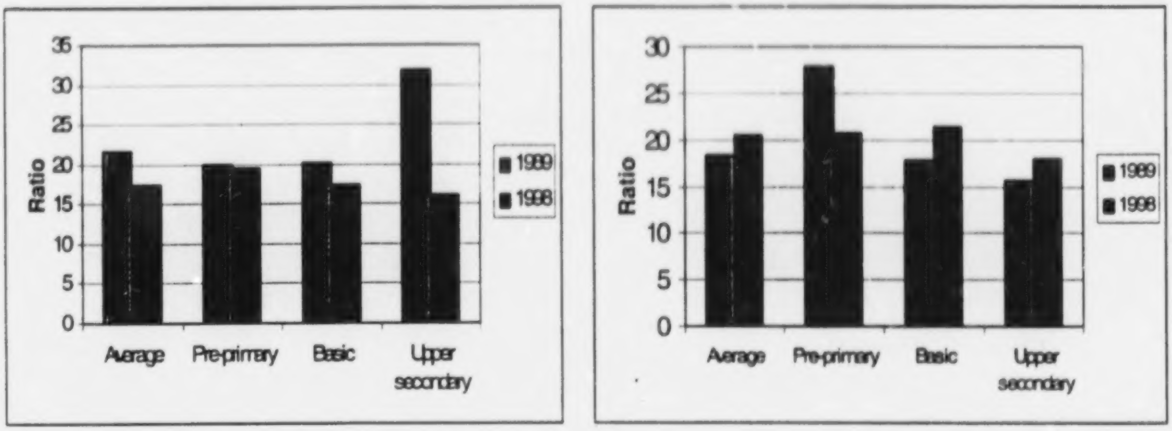
Figure 4.9 Changes in Albania's student-teacher ratio, 1989/1998



Source: Table 4.14

Noticeable differences exist between urban and rural areas, however. In urban schools the ratio increased, on average, and in rural schools it decreased – particularly strongly in upper secondary education (figure 4.10). We also examined differences in the student-teacher ratio at the district level and found a clear pattern of low student-teacher ratio in northern rural districts (Tropoje, Puke, and Mirdite) and southern rural districts (Gjirokaster, Delvine, Sarande, Devoll) at all levels of education (see Statistical appendix). For secondary education in most areas the student-teacher ratio was above the average ratio for OECD countries.

Figure 4.10 Rural and urban student-teacher ratios, 1989/1998



Source: Table 4.14

The diverging trend in student-teacher ratios in urban and rural areas suggests that changes in the ratio were not policy driven. Rather, the reduced ratio in rural areas appears to be the result of a disproportionate drop in enrollments in rural areas, coupled with the limited pool of potential students in rural schools, which means rural schools cannot increase class size by combining classes (unless they create multigrade classes).

Could the lower student-teacher ratio in rural areas have been avoided? For example, could classes have been combined, to increase the student-teacher ratio? The fact is, significant efforts were made to economize on teachers and space in rural schools. In 1995/96, 41,800 primary school students (21.5 percent of rural primary enrollment) and 10,900 lower secondary school students (7 percent) attended multigrade classes, virtually all of them in rural areas (Statistical appendix).

To understand possibilities for containing costs it is important to know the makeup of districts specific schools serve. First, populations in urban and rural school districts differ greatly. More than 70 percent of basic and over half of pre-primary schools in rural areas serve populations of fewer than 750 (Statistical appendix). Second, virtually all rural pre-primary schools in rural areas serve students from only one village, and 60 percent of basic schools do (Statistical appendix). Third, the maximum distance students have to travel to school is greater in rural areas: in 1998, students' homes were more than 3 kilometers away in 7 percent of rural pre-primary schools, 35 percent of rural basic schools, and 69 percent of rural upper secondary schools. In urban areas, the comparable percentages were only 2 percent, 22 percent, and 36 percent, respectively, and transportation possibilities were much better (Statistical appendix). And finally, the percentage of schools with fewer than 20 students in one grade is much larger in rural areas (Statistical appendix).

Under these circumstances, the schools' ability to fill classes to meet norms – and to lower costs! – is limited. With reduced demand, migration from Albania, and rural--urban migration within Albania, rural schools with few potential students have few ways to economize on resources by combining classes and teacher's obligations.

School size

School size is another indicator of how efficiently schools adjusted to reduced enrollment in the 1990s. Small schools – those with just one class per grade, for example – are vulnerable to classes below the norm in size unless they adopt multigrade teaching, which may not be appropriate at all levels. Pre-primary schools are smallest, both in number of students and number of classes, ranging from an average 2 to 4 classes per urban school to just one class in rural schools (table 4.16). Basic schools tend to be the largest, about twice the size of upper secondary schools. Average school size also varies greatly across districts, with schools in the rural north and south being much smaller than elsewhere in the country (Statistical appendix).

Has average school size changed in the 1990s? Although the number of students has fallen, average school size has not changed much – except for rural basic and upper secondary schools, which have fewer classes (table 4.16). In 1998, rural upper secondary schools averaged only one class per grade, which allows few efficiency improvements from combining classes. Moreover, this leaves the schools vulnerable to future reductions in enrollment, which are bound to reduce the student-teacher ratio and increase costs per student, unless schools resort to multigrade classes.

The Black Box of the Albanian Classroom

We can address issues of technical efficiency by studying the use of resources, but we must also pay attention to results. Albania has no standardized achievement tests, so we have to rely on indirect indicators. In this section we examine Albanian teachers' teaching methods and school-related activities, and students' after-school study-related activities.

What methods do Albanian teachers use in the classroom?

Our survey of eight grade mathematics teachers and students helped us answer this question.[21] Surprisingly, the method of eighth-grade math teachers use most often is to have students work in pairs or small groups without teacher assistance. The second most common approach is the more traditional one of working together as the teacher teaches the whole class, and then working individually with teacher's help. Other methods are used less often (see table 4.17). In comparison with their OECD counterparts, Albanian teachers reported proportionately more traditional teaching, but also, surprisingly, proportionately more group work.

When we compared Albanian teachers' school-related activities outside the formal school day with those of their counterparts in developed economies, we found they reported the same total weekly number of hours (table 4.18). Albanian teachers spend somewhat more time meeting with parents, and less time planning and preparing lessons and performing administrative tasks.

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[21] Data reported were obtained through an Eighth Grade Teacher and Student Survey designed by the authors and administered in February 1999 in 13 primary schools (8 in Tirana and 5 in rural areas outside Tirana). Data are available upon request. The questionnaire was filled out by all 392 students and by 27 mathematics teachers (to enable comparison with developed economies, only eighth grade mathematics teachers and students were selected). Because of the small sample, the reported results must be viewed only as indicative.

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How students learn?

We asked Albanian eighth grade students how they spend their daily study time outside of school. Students' responses are similar to those of students in OECD countries. Albanian students spend an average 2.9 hours a day studying or doing homework for all school subjects, which is slightly above the reported average (2.5 hours) for OECD countries. Albanian students spend slightly more time studying or doing homework for mathematics (table 4.19). We also asked how much time they spent memorizing material by heart. The average of 1.4 hours – nearly half of the study time – is very high, highlighting the importance of rote learning in Albanian education and corroborating the overemphasis on facts ("factology") reported elsewhere about education in transition economies (see, for example, UNICEF, 1998). We cannot compare this emphasis on rote learning with practices in OECD countries; no comparison data are available.

This modest glimpse into the black box of Albania's educational process reveals no major deviations in Albanian teaching methods or in student time devoted to studying outside of school. Perhaps the strongest symptom that Albanian education is on a different track from education in developed economies – and that its production process is wrought with inefficiencies – is the overemphasis on rote learning students reported. It is therefore important that Albania strengthen teacher development programs and – when developing a system for testing student achievement – downplay, not encourage, memorization.

Key Issues

Faced with falling participation rates and enormous pressure to reduce spending, Albania had to implement changes in the allocation of resources in education – and succeeded to do so. As a result, the number of schools, classes, and teachers was greatly reduced and class size was increased. Nonetheless, the student-teacher ratio declined from its 1989 level, before increasing again, starting in 1992. But the student-teacher ratio declined from the pre-transition levels only in rural areas; in urban areas, from 1996 on, the average student-teacher ratio was higher than before the transition.

In several ways, the inefficiencies associated with the fall of the student-teacher ratio in rural areas result from low population density. For example, many rural basic schools use multigrade teaching, most basic schools in rural areas have students from only one village, and in 35 percent of schools some students have to travel more than three kilometers to school. In other words, the study revealed a number of reasons why costs per student in rural schools may exceed those in urban schools.

Under the pressure of increased fiscal stringency, resources devoted to education were economized in ways that jeopardize the education's longer-term prospects. First, teachers' relative salaries deteriorated greatly, their working conditions deteriorated, and they were given no funds for formal training. Second, non-teaching staff was kept too slim. Third, although many schools lack basic infrastructure and urgently need reconstruction, there is little or no maintenance.

Policies based on such short-term thinking are damaging in the longer term. Low and falling relative wages and unattractive working conditions for teachers lower the morale of teachers and stimulate "adverse selection" among teachers. Deferring the maintenance of school buildings may save money in the short term but is clearly damaging, and steady maintenance saves resources in the longer term.

Whether rational, informed decisions are made depends largely on the incentives decision-makers face and the quality of the information they command. Under the present governance structure, Albania's Ministry of Education – through its district offices – decides which teachers to employ, how to organize schools (in terms of number of classes), and whether to have multigrade classes. Under centralized decision-making and accountability, the school management, despite having most information, has little incentive to economize on resources. One way to improve the allocation of resources is therefore to strengthen school administrators' incentives by decentralizing decision-making and accountability. And one way to reduce costs per student is to attract more students to classrooms. Indeed, given the large drop in participation on all levels, this may be one of the most important steps toward improving efficiency in education – and improve productive capacity of the labor force at the same time.

The above finding that learning in Albania's schools overemphasizes memorization deserves particular attention and future research. It also points to the need to provide teachers with training, both about subject matter and teaching methods.

5 Education's Projected Fiscal Impact

Participation in education in Albania declined in the 1990s, educational spending was reduced, and the quality of schooling suffered. School facilities and working conditions deteriorated, classrooms lacked heating and teaching materials, teachers took cuts in pay and were given no opportunities for formal training.

Assuming that the Albanian government is willing to reverse this course of events – what are fiscal implications of different policies? What will it cost if school participation rates increase? How many more resources are needed if the country decides to pay higher wages to teachers or to increase welfare services (such as boarding costs and school meals)? How affordable would such developments be?

In this chapter, we evaluate the resources – fiscal costs – that will probably be needed under alternative scenarios. First we project resources needed under the *status quo* (the so-called "base scenario"), assuming current enrollment rates and per student expenditures will continue. Then we study departures from the base scenario, "target scenarios" that depart from the base scenario in one or more ways – for example, by assuming higher enrollment rates or increased spending in certain categories. Then we calculate changes in resources needed to implement target scenarios.

To calculate the fiscal impact of different scenarios, we employ a simple nonbehavioral model that includes only recurrent expenditures; capital expenditures have to be considered separately.[22] The base scenario assumes that key characteristics affecting the current level of spending will remain unchanged. In particular, we assume unchanged enrollment rates and real spending per student. As a result of these assumptions, the main determinants of spending under the base scenario are demographic projections and – since we express expenditures in terms of GDP – the projected growth rate of GDP (we assumed a constant 3-percent yearly GDP growth rate over the next ten years). For target scenarios we change some of the parameters of the model according to different policy objectives and present the results as deviations from the base scenario (in terms of GDP percentages). Model predictions are sensitive to changes in assumptions, but they nonetheless indicate the magnitudes of spending required to finance desired changes.

Under the base scenario, we forecast a steady decrease in education share of spending until the year 2010 (table 5.1). This result – an easing of education financing – is driven by two main factors: by a drop in the pre-primary and basic education population, and by a projected increase in GDP. Calculations for the base scenario already assume the announced increase in salaries for public sector workers in April 1999 (17 percent increase in teachers' salaries and 10 percent increase in non-teaching staff's salaries). The total calculated effects of this salary increase would raise the education's share of expenditures by a sizable 0.3 percent of GDP in the year after the change. By the year 2010, the effect is reduced to 0.21 percentage point as GDP grows (table 5.2). To repeat, the base scenario provides a benchmark. It assumes that no policies are undertaken which would improve the education system.

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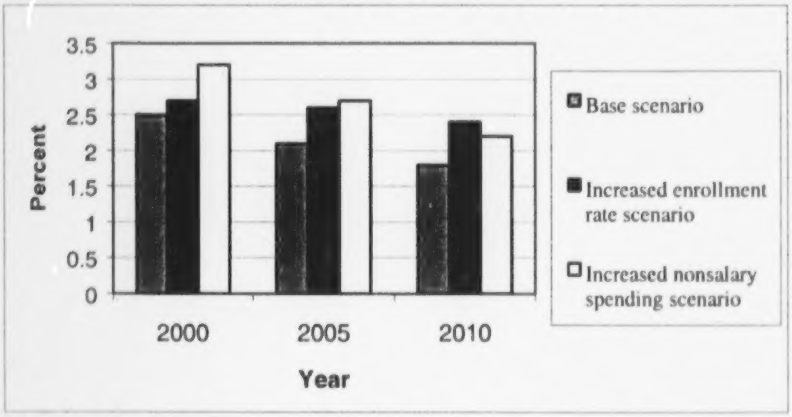
[22] For some small changes in participation rates assumed in the base scenario, no additional capital may be needed; for larger deviations the projections require additional capital expenditures. We do not discuss other binding constraints on projections, such as potential problems finding additional qualified teachers.

Of many possible future scenarios, we concentrate on two: one assuming an increased enrollment rate, the other assuming greater non-salary spending on education.

- **The increased enrollment scenario** sets as a target universal participation in basic education by 2005, and an increase in the enrollment rate for upper secondary and tertiary education that would cut in half the enrollment gap between Albania and the OECD average by the year 2010 (see assumed enrollment rates in table 5.3). (No changes are assumed for pre-primary participation, a cautious approach advocated in UNESCO, 1998, among others.) We calculate that additional resources needed under this scenario are 0.13 percent of GDP in the year 2000, rising to 0.59 percent of GDP by the year 2010, which in is nearly a 25 percent increase in total expenditures (see figure 5.1).
- **The increased nonsalary spending scenario** assumes that the nonsalary share of expenditures will rise to match the average share of non-salary expenditures in the European transition economies, where prevailing conditions in education and in the wage structure are presumably comparable to those in Albania. We calculate that additional resources needed under this scenario are a high 0.65 percent of GDP in the year 2000, dropping to 0.46 percent of GDP by the year 2010.

Figure 5.1: Total recurrent expenditures on education under three scenarios, 2000-2010
(as a percentage of GDP)



Source: Authors' calculations.
Note: See text for assumptions underlying these scenarios.

In sum, in calculating the amount of additional resources needed to meet selected critical needs in Albanian education, we focused on an increase in teachers' salaries, on increased enrollment rates, and on increases in the nonsalary share of expenditures. Our model calculations show such increases to be substantial:

- An annual 0.30 percent of GDP for a 17 percent salary increase of teachers and 10 percent salary increase for non-teaching staff.
- An annual 0.59 percent of GDP by the year 2010 if enrollment rates increase as projected in table 5.3.

- An annual 0.65 percent of GDP in the initial year for increased nonsalary spending (for example, teaching materials, maintenance, and scholarships).

Even with all of these projected increases, Albanian spending on education as a share of GDP would not exceed the comparable share in developed economies. And it must be emphasized that some of the policies suggested above are absolutely necessary as the government must reverse the trends of falling enrollment and its policies of underpaying teachers. Also note that these projections may be conservative – we only assume a 3-percent yearly growth rate, and that they do not include any structural and developmental implications of new policies (construction of new schools and other capital expenditures).

6 Conclusions and Recommendations

The most salient and worrisome development in Albanian education in the 1990s has been a strong and steady reduction in enrollment – and enrollment rates – at all levels of education except tertiary. The number of students enrolled in 1998 was 15 percent below enrollment in 1989. Whatever the reasons, this trend, if it is not reversed, will seriously undermine the productive capacity of the whole economy. Both supply and demand forces have contributed to this trend. On the supply side, financial stringency has reduced the resources available to the sector, which affects the proper functioning of schools and the quality of education. On the demand side, enrollment is down because the perceived value of education has declined and the opportunity costs of schooling have risen.

Real resources devoted to education have shrunk. Tight constraints on education resources have seriously hindered students' participation to schools and schools' capacity to provide quality education. Education spending as a share of GDP fell from well over 4 percent of GDP in the early 1990s to 2.8 percent in 1998, and spending per student in relation to per-capita GDP fell also.

Education spending has been limited to bare essentials, at the expense of important needs with no immediate return such as maintenance and teacher training. This policy of minimal education spending reduces the value of physical assets and human capital, thus jeopardizing the quality of education as a whole. Moreover, low education expenditures do not necessarily bring savings. Insufficient public spending simply becomes higher private costs for participating in education and the transfer of long-run costs to future generations.

To contain costs while adjusting to the drop in enrollment, the education sector in the 1990s reduced the number of teachers, the number of classes, and the number of schools. The reduction in number of teachers was less than proportional to the reduction in number of students, so the student-teacher ratio declined, but only in rural schools – it increased, on average, in urban schools. In 1998, the student-teacher ratio in Albania was higher than the ratio in developed economies at all levels of education. The teachers' share in total employment was slightly below the average for developed economies.

There is only limited scope for increasing technical efficiency by consolidating schools and reducing the number of teachers. Such an adjustment has taken place (for example, through multigrade teaching) and inefficiencies resulting from reduced enrollment have mostly been eliminated. Many rural schools are so small already that there is little possibility to economize further by combining classes and doubling up teacher's obligations.

Changes in Albania's economy and education system have made schools less accessible to students in rural areas or from low-income families. It has not made schools less accessible to girls than boys.

Recommendations

Strengthening education is essential if Albania is to expand its long-term production capacity and support its democratic process. But the country's education sector faces formidable challenges. Effective change will require the government identifying key issues in education and formulating (with the assistance of international organizations) a strategy for educational development at all levels. Four broad tasks are essential for improving and developing the Albanian school system:

1. **Increase enrollment rates at all levels of schooling**. The transition in Albania has lowered enrollment rates to intolerable levels and the government needs to set targets of higher enrollment at all level of schooling. Targets should include truly universal education in primary and lower secondary schools (ages 6-13); a substantial increase over current upper secondary enrollment; and selective interventions (appropriate to Albania's current demographic and health considerations), at the pre-primary level, with an emphasis on better nutrition for children and easier access to education for the most vulnerable members of Albania's population. At primary and secondary school levels, special attention has to be paid to enrollment in rural areas and participation rates of children from poor families.

2. **Improve the quality of Albanian education**. Low quality is one of the major determinants of low participation in Albanian education and to improve the quality of education priority should be given to:

   - Formulating human resource policies (including teacher development programs and salary policies) that will attract good teachers and give them incentive to perform well in classrooms. In contrast to the past, staffing policies should be separated from political consideration – hiring should be based purely on professional grounds, and dismissals should be based on proved incompetence.
   - Renovating and adequately maintaining school buildings, thereby providing an adequate physical environment for schooling.
   - Expanding the role of the private sector, especially in tertiary education.

(Some substantial educational improvements, such as curriculum reform, changes in teaching methods, increased parental participation in the education process, are beyond the scope of this report.)

3. **Increase public spending on education.** Public spending on Albanian education has steadily decreased, and this development has been mutually reinforced by lower enrollment, worse quality of education, peculiar budget decision-making rules and allocations. To increase participation in and quality of education and to improve budget allocations, the government needs to reverse this negative trend in educational spending. However, increasing aggregate spending is not enough it needs to be accompanied by:

   - Developing clear priorities for the sector and the different level of schooling; in particular, the relative spending on tertiary education has to be reduced and per student resources in primary and secondary schools increased.
   - Examining the fiscal impact of the identified priorities and ensure reliable funding to support policies. In particular, projections show that Albania can significantly improve the quality of education and increase the enrollment rates while still keeping

the share of education spending in GDP below the comparable share in developed economies.

- Spending more on non-wage expenditures (including maintenance and teacher training) and investments; in fact, the present budgeting "for the essential" is only transferring costs to the future.

4. **Make better use of teachers and schools through decentralized decision-making.** In response to falling participation rates the government has economized with resources but it also needs to improve the use of existing resources. This can be achieved by decentralizing decision making to local or district governments and schools. Decentralization will bring decisions closer to the users of education services, thereby better adapting allocations to local needs. It will also empower and create a sense of ownership among school-level stakeholders, and increase transparency and accountability at all levels.

Technical Appendix

Calculation of Estimates in Figure 3.3

In this appendix we explain the model to estimate the change in public spending on education as a share of GDP if Albanian enrollment rates were the same as the OECD country mean (figure 3.3). To this end, the following has to be calculated:

1) The expected total enrollment if enrollment rates were at the OECD level.
2) The difference in total spending on education that would result from such a change in enrollment.
3) The ratio of education spending relative to GDP.

Step 1. Let $POP(t,a)_k$ be the total population aged k in year t in country a (such as Albania), and let $AER(t)_k$ denote the OECD country mean enrollment rate in year t for age k. The expected enrollment ($EE(t,a)$) in country a if its enrollment rates were equal to the OECD mean is

$$EE(t,a) = \sum_{k=5}^{29} POP(t,a)_k \times AER(t)_k$$

Step 2. Let us denote by $TE(t, a)$ total spending on education in year t in country a, and by $E(t, a)$ its actual enrollment in year t. The variation in total public spending $VTE(t, a)$ following a change in the average enrollment rate so as to bring it to the $AER(t)$ in OECD is

$$VTE(t, a)=TE(t, a)\,(EE(t, a)/E(t, a))-TE(t, a)$$

In the case discussed in chapter 3, actual enrollment in Albania refers to $t=1997$, population refers to $t=1997$, and the OECD country mean refers to $t=1996$. The average net enrollment rates refer to the age classes 5-14, 15-19, 20-29. These adjustments were necessary for lack of data. For this exercise, data on Albania's population are drawn from the 1998 MONEE UNICEF database.

Statistical Appendix

Table 2.1 Number of public and private schools and relative enrollment in Albania, 1997-98
(Total number and percentage of the total)

Level of education	**Public Number (%)**	**Private Number (%)**
Pre-primary education		
- Number of schools	2,408 (99.8)	5 (0.2)
- Number of children	80,418 (99.5)	395 (0.5)
Primary education		
- Number of schools	1,803 (99.3)	13 (0.7)
- Number of students	559,324 (99.7)	1,843 (0.3)
Secondary education (Lower and upper)		
- Number of schools	400 (97.8)	9 (2.2)
- Number of students	98,721 (98.8)	1,149 (1.2)
Tertiary education		
- Number of schools	11 (100)	0
- Number of students	35,902 (100)	0

Source: Statistical Office of Albania.

Table 2.2 Levels of education and typical attending age in Albania

Level	**Type and level of school**	**Age of pupil** (in years)		**Duration** (in years)
		Upon entry	**Upon completion**	
	Pre-primary education			
Level 0	Kindergarten	3	3 - 5	4
	Basic education (primary and lower secondary)			
Level 1	Primary school	6	6 - 9	4
Level 2	Lower secondary school	10	10-13	4
	Upper secondary education			
Level 3C	Secondary vocational education (3 years)	14	14-16	3
Level 3A	General education (4 years)	14	14-17	4
Level 3A	Secondary vocational education (4 years)	14	14-17	4
Level 3A	Secondary vocational education (5 years)	14	14-18	5
	Tertiary education			
Level 5B	Tertiary education (3 years, Non-University)	18	18-20	3
Level 5A	Tertiary education (4 years, University)	18	18-21	4
Level 5A	Tertiary education (5 years, University	18	18-22	5
	Post -university higher education			
Level 6	Doctorate	23	24-26	3-4

Note: The levels of education are defined with reference to the International Standard Classification of Education (ISCED) of 1976.

Table 2.3 Total enrollment in Albania by level of education, 1989-98
(in thousands)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Whole country										
Pre-Primary	125	130	109	81	80	80	85	84	80	82
Basic	552	557	540	526	536	551	558	561	559	553
Upper secondary	203	206	147	116	103	94	90	93	99	102
Tertiary	26	27	28	33	30	28	30	34	36	36*
Total	906	920	824	756	749	753	763	772	774	773
Urban areas										
Pre-Primary	59	61	55	38	32	32	35	34	33	37
Basic	170	175	176	182	189	191	198	208	213	213
Upper secondary	93	83	68	59	57	55	57	66	71	72
Tertiary	26	27	28	33	30	28	30	34	36	36
Total	348	346	327	312	308	306	320	345	353	358
Rural areas										
Pre-Primary	66	69	54	43	48	48	50	50	47	45
Basic	382	382	364	344	347	360	360	353	346	340
Upper secondary	110	123	79	57	46	39	33	27	28	30
Total	558	574	497	444	441	447	443	427	421	415
Memorandum item										
Population age (3-22)	1,328	1,345	1,331	1,300	1,288	1,291	1,298	1,306	1,326	1,349

Source: Statistical Office of Albania.

Note: * Enrollment for tertiary education includes both full- and part-time students.

Table 2.4 Pre-primary enrollment rates in transition economies, 1989-98 (net rates as percentage of the relevant age group)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Albania	56.7	57.9	48.9	36.8	36.1	36.8	39.2	38.9	36	35.8
Comparison countries										
Country mean	52.7	51.4	49.4	44.5	42.9	42.7	44.1	47.4	n/a	n/a
Armenia	65.2	60.5	60.4	51.9	45.3	39.1	31.4	32.4	n/a	n/a
Azerbaijan	21.9	20.6	20.6	18.8	18.7	16.6	15.1	13.8	n/a	n/a
Belarus	63.1	63.3	62.5	58.0	58.3	61.0	62.3	64.0	n/a	n/a
Bulgaria	69.1	67.7	58.7	62.5	60.4	62.6	67.5	69.2	n/a	n/a
Croatia	28.2	29.4	29.4	19.1	20.0	n/a	26.1	n/a	n/a	n/a
Czech Republic	89.8	89.8	89.8	83.3	84.9	86.6	88.7	88.5	n/a	n/a
Estonia	63.3	62.2	67.4	60.5	53.7	56.0	58.8	63.2	n/a	n/a
Federal Republic of Yugoslavia	31.2	31.9	31.6	29.2	34.0	28.5	32.6	34.5	n/a	n/a
FYR Macedonia	n/a	26.2	24.4	25.3	25.5	26.9	28.0	n/a	n/a	n/a
Georgia	4.1	43.6	39.9	31.0	26.8	17.4	14.2	11.7	n/a	n/a
Hungary	85.7	84.9	85.9	86.5	86.6	86.1	86.9	87.0	n/a	n/a
Kazakhstan	54.7	53.5	52.5	45.3	39.8	29.3	23.5	n/a	n/a	n/a
Kyrgyz Republic	31.3	30.3	26.7	23.3	13.4	8.8	7.7	8.0	n/a	n/a
Latvia	52.8	44.8	37.0	28.3	32.6	39.9	47.1	50.8	n/a	n/a
Lithuania	63.9	58.6	63.9	39.1	30.1	34.5	36.2	40.0	n/a	n/a
Moldova	62.8	61.4	58.7	42.4	36.6	35.1	32.3	32.1	n/a	n/a
Poland	48.7	47.1	43.9	42.6	42.7	44.3	45.3	46.8	n/a	n/a
Romania	63.3	54.3	51.9	53.3	50.2	55.2	58.4	55.1	n/a	n/a
Russian Federation	69.3	66.4	63.9	56.8	57.4	56.2	55.5	55.0	n/a	n/a
Slovak Republic	91.5	83.7	75.7	78.1	78.0	74.6	70.2	75.2	n/a	n/a
Slovenia	57.0	56.3	56.6	55.8	56.2	60.3	62.8	65.1	n/a	n/a
Tajikistan	16.0	15.0	14.0	11.0	10.4	9.4	n/a	n/a	n/a	n/a
Turkmenistan	33.8	33.9	32.8	32.0	39.6	30.1	n/a	n/a	n/a	n/a
Ukraine	61.0	57.4	51.0	54.7	49.4	47.0	44.3	41.0	n/a	n/a
Uzbekistan	33.8	36.8	35.1	30.7	29.0	26.1	24.5	24.0	n/a	n/a

Source: Statistical Office of Albania, and UNICEF (1998).

Note: n/a=no data available.

Table 2.5 Basic education enrollment rates in transition economies, 1989-98 (gross rates as percentage of the relevant age group)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Albania	103.2	102.3	97.8	94.2	95.2	96.6	96.0	95.6	92.1	92.1
Comparison countries										
Country mean	95.1	94.8	93.2	90.8	90.5	90.6	90.6	90.6	n/a	n/a
Armenia	98.8	97.8	95.8	92.4	n/a	91.6	90.8	91.0	n/a	n/a
Azerbaijan	90.6	90.4	91.2	92.8	92.9	90.6	86.7	n/a	n/a	n/a
Belarus	95.8	94.9	94.2	94.2	93.7	93.6	94.1	93.8	n/a	n/a
Bulgaria	98.4	98.6	97.3	95.1	94.0	94.3	93.7	93.6	n/a	n/a
Croatia	96.0	94.0	81.0	79.0	85.0	89.0	88.0	n/a	n/a	n/a
Czech Republic	96.9	97.3	99.3	98.6	97.4	96.1	95.3	92.0	n/a	n/a
Estonia	98.1	96.2	94.9	93.6	92.3	91.7	91.2	92.2	n/a	n/a
Federal Republic of Yugoslavia	95.3	95.0	94.4	72.7	74.3	72.5	71.6	72.7	n/a	n/a
FYR Macedonia	n/a	89.4	87.1	86.2	86.2	86.8	86.5	86.9	n/a	n/a
Georgia	90.5	92.0	91.2	89.4	86.1	n/a	n/a	n/a	n/a	n/a
Hungary	99.0	99.2	99.2	99.2	99.1	99.1	99.1	99.2	n/a	n/a
Kazakhstan	93.9	93.1	92.7	91.7	91.5	90.9	90.5	90.0	n/a	n/a
Kyrgyz Republic	85.4	n/a	84.5	83.9	83.6	83.0	82.5	76.4	n/a	n/a
Latvia	95.8	96.4	95.2	90.9	89.4	89.0	89.5	89.5	n/a	n/a
Lithuania	94.0	93.0	92.6	92.8	91.9	92.2	93.2	94.0	n/a	n/a
Moldova	95.8	95.6	94.4	80.3	80.0	79.3	79.8	79.3	n/a	n/a
Poland	97.9	97.5	97.3	97.1	97.2	97.1	97.2	97.4	n/a	n/a
Romania	93.6	89.5	89.4	89.6	90.3	91.4	92.6	93.9	n/a	n/a
Russian Federation	93.0	93.6	94.4	93.3	91.9	90.7	91.3	91.4	n/a	n/a
Slovak Republic	96.8	97.2	98.0	99.8	99.5	97.0	96.5	96.3	n/a	n/a
Slovenia	96.0	96.1	97.1	96.8	97.6	97.8	96.7	97.3	n/a	n/a
Tajikistan	94.1	94.0	94.2	89.6	85.1	86.4	n/a	n/a	n/a	n/a
Turkmenistan	92.8	92.2	89.5	88.5	88.5	89.1	n/a	n/a	n/a	n/a
Ukraine	93.1	93.5	92.4	n/a	91.6	90.8	91.0	90.3	n/a	n/a
Uzbekistan	92.2	91.1	87.9	87.5	87.9	88.6	n/a	n/a	n/a	n/a

Note: Basic education refer to grades 1-8, including primary and lower secondary education.
n/a= no data available.
Source: Our calculations from data of the Statistical Office of Albania, and UNICEF (1998).

Table 2.6 General secondary enrollment rates in transition economies, 1989-98 (gross rates as percentage of the relevant age group)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Albania	24.4	26.0	28.3	29.6	30.1	29.7	29.1	31.6	33.9	34.9
Comparison countries										
Country mean	28.0	28.6	26.8	25.2	25.0	25.5	25.1	26.4	n/a	n/a
Armenia	35.9	34.3	32.5	31.3	31.2	30.7	29.1	29.6	n/a	n/a
Azerbaijan	33.0	33.5	34.5	32.8	28.9	27.0	25.8	28.1	n/a	n/a
Belarus	27.5	26.6	26.0	25.2	24.2	24.9	24.9	26.8	n/a	n/a
Bulgaria	30.7	29.9	29.4	29.3	29.6	31.3	31.7	31.4	n/a	n/a
Croatia	n/a	n/a	n/a	8.8	13.9	18.0	18.5	18.7	n/a	n/a
Czech Republic	15.9	16.1	15.6	15.9	16.5	17.6	18.8	18.7	n/a	n/a
Estonia	37.3	36.3	36.7	37.0	39.4	43.5	43.7	43.9	n/a	n/a
Federal Republic of Yugoslavia	n/a	n/a	8.0	12.8	19.6	n/a	n/a	n/a	n/a	n/a
FYR Macedonia	n/a	n/a	10.6	14.4	15.8	17.5	18.2	n/a	n/a	n/a
Georgia	39.0	40.2	39.7	34.4	26.4	23.0	21.9	24.0	n/a	n/a
Hungary	19.7	19.8	19.5	19.5	19.2	20.0	21.2	22.3	n/a	n/a
Kazakhstan	30.4	31.7	32.3	31.0	28.4	27.0	25.5	24.8	n/a	n/a
Kyrgyz Republic	n/a	36.6	36.7	36.0	32.5	28.6	27.3	n/a	n/a	n/a
Latvia	22.1	21.2	20.3	20.3	24.7	26.7	28.7	30.3	n/a	n/a
Lithuania	34.7	34.2	32.8	30.6	30.4	32.9	34.8	38.6	n/a	n/a
Moldova	29.0	26.6	22.6	17.1	17.1	17.6	18.1	19.4	n/a	n/a
Poland	21.0	21.7	23.3	24.9	26.4	28.1	29.7	30.5	n/a	n/a
Romania	3.8	11.6	16.4	17.8	18.4	19.3	19.8	20.4	n/a	n/a
Russian Federation	23.6	24.4	24.7	23.6	22.6	22.3	23.4	24.5	n/a	n/a
Slovak Republic	15.6	16.0	16.4	17.1	18.0	19.0	20.0	20.9	n/a	n/a
Slovenia	n/a	n/a	n/a	n/a	n/a	19.5	20.1	20.5	n/a	n/a
Tajikistan	41.5	40.7	37.7	29.7	26.8	25.3	23.6	22.3	n/a	n/a
Turkmenistan	39.0	39.7	37.5	34.9	35.2	35.6	n/a	n/a	n/a	n/a
Ukraine	25.8	25.2	24.2	n/a	22.7	23.4	24.0	25.5	n/a	n/a
Uzbekistan	37.5	37.7	36.5	31.0	28.0	27.8	n/a	27.0	n/a	n/a

Source: Statistical Office of Albania, and UNICEF (1998).

Note: n/a= no data available.

Table 2.7 Technical and vocational secondary enrollment rates in transition economies, 1989-98

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Albania	54.1	53.1	30	17.4	12.3	8.4	7.5	6.9	6.4	6.1
Comparison countries										
Country mean	46.8	43.4	40.4	37.2	35.9	35.8	35.9	33.6	n/a	n/a
Armenia	31.6	29.0	25.7	22.8	18.3	14.9	11.3	11.7	n/a	n/a
Azerbaijan	27.9	26.0	25.6	21.0	16.3	13.4	11.3	10.7	n/a	n/a
Belarus	58.0	54.7	55.4	54.7	54.0	51.8	48.9	41.2	n/a	n/a
Bulgaria	47.0	47.3	46.1	43.1	41.5	42.6	42.5	42.2	n/a	n/a
Croatia	n/a	n/a	n/a	58.5	60.1	58.4	54.7	57.1	n/a	n/a
Czech Republic	72.2	65.0	61.3	60.1	65.5	66.9	60.3	n/a	n/a	n/a
Estonia	n/a	n/a	n/a	35.4	33.0	32.8	34.9	37.4	n/a	n/a
Federal Republic of Yugoslavia	17.4	15.6	12.1	13.1	13.9	12.6	13.0	n/a	n/a	n/a
FYR Macedonia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Georgia	36.5	34.3	n/a	32.0	28.3	25.0	25.0	25.2	n/a	n/a
Hungary	69.6	69.7	67.9	66.4	65.1	65.4	65.2	65.6	n/a	n/a
Kazakhstan	n/a	39.9	n/a	n/a	n/a	30.5	29.0	25.7	n/a	n/a
Kyrgyz Republic	27.6	25.2	24.4	23.4	22.0	18.6	16.4	13.9	n/a	n/a
Latvia	n/a	46.3	43.9	39.9	36.5	33.7	32.1	32.7	n/a	n/a
Lithuania	n/a	n/a	n/a	19.7	20.8	21.7	23.6	23.9	n/a	n/a
Moldova	42.1	38.4	35.6	29.5	30.5	23.1	22.5	22.8	n/a	n/a
Poland	72.2	70.8	69.0	67.8	67.8	68.1	67.6	67.5	n/a	n/a
Romania	87.2	67.8	52.9	44.1	40.3	40.6	42.3	41.3	n/a	n/a
Russian Federation	54.2	50.8	49.0	46.4	44.2	41.6	41.8	41.8	n/a	n/a
Slovak Republic	63.8	60.6	57.4	55.1	54.2	54.8	57.8	60.3	n/a	n/a
Slovenia	n/a	n/a	n/a	n/a	n/a	61.0	62.2	63.7	n/a	n/a
Tajikistan	19.6	18.8	18.4	17.2	17.0	15.2	n/a	4.9	n/a	n/a
Turkmenistan	23.8	22.8	22.0	21.4	18.2	n/a	n/a	n/a	n/a	n/a
Ukraine	50.1	n/a	n/a	n/a	37.7	35.3	33.8	32.6	n/a	n/a
Uzbekistan	34.2	31.4	29.8	28.8	27.2	23.4	21.2	10.5	n/a	n/a

Source: Statistical Office of Albania, and UNICEF (1998).
Note: n/a= no data available.

Table 2.8 Tertiary enrollment rates in transition economies, 1989-98 (gross rates as percentage of the relevant age group)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Albania	6.6[a]	7.0	7.6	8.3	7.8	6.9	6.7	6.6	7.0	6.9[a]
Comparison countries										
Country mean	13.0	13.5	13.6	13.3	13.4	14.0	14.9	16.2	n/a	n/a
Armenia	16.5	17.0	16.8	15.0	12.3	10.2	13.2	11.5	n/a	n/a
Azerbaijan	8.1	8.6	9.2	8.6	8.5	8.7	11.0	n/a	n/a	n/a
Belarus	16.5	16.7	16.6	17.0	16.1	17.3	17.8	18.7	n/a	n/a
Bulgaria	16.4	18.8	18.7	19.8	20.9	23.0	26.0	27.0	n/a	n/a
Croatia	n/a	n/a	13.9	14.3	16.0	16.5	16.6	17.2	n/a	n/a
Czech Republic	12.7	13.6	13.1	13.3	13.6	14.2	15.0	16.6	n/a	n/a
Estonia	n/a	14.2	14.1	13.8	14.3	15.6	16.9	18.6	n/a	n/a
Federal Republic of Yugoslavia	17.1	16.9	15.8	13.7	14.8	14.5	14.9	16.5	n/a	n/a
FYR Macedonia	n/a	n/a	14.4	14.4	12.6	11.3	n/a	n/a	n/a	n/a
Georgia	13.9	16.0	15.5	13.5	12.8	n/a	n/a	n/a	n/a	n/a
Hungary	13.9	14.2	14.8	15.7	16.8	18.5	20.7	22.9	n/a	n/a
Kazakhstan	12.9	13.0	13.4	13.1	12.7	12.6	12.5	12.9	n/a	n/a
Kyrgyz Republic	10.9	10.8	10.4	9.7	9.7	10.8	11.8	12.9	n/a	n/a
Latvia	15.2	15.5	15.6	15.9	15.8	16.4	18.5	22.8	n/a	n/a
Lithuania	17.7	17.2	15.6	13.7	13.3	13.1	13.9	15.4	n/a	n/a
Moldova	11.6	11.7	11.4	10.8	10.3	10.8	11.9	12.5	n/a	n/a
Poland	11.6	12.4	13.0	14.3	15.7	17.0	18.1	19.7	n/a	n/a
Romania	8.8	10.1	11.0	12.2	13.1	13.4	13.2	n/a	n/a	n/a
Russian Federation	16.6	16.9	17.1	17 0	16.4	16.1	16.9	17.6	n/a	n/a
Slovak Republic	13.2	13.8	13.3	14.2	14.4	15.0	15.6	16.8	n/a	n/a
Slovenia	18.2	19.3	21.8	21.6	22.9	23.4	24.7	n/a	n/a	n/a
Turkmenistan	8.1	8.0	7.9	7.4	7.4	n/a	7.3	n/a	n/a	n/a
Ukraine	15.3	15.3	15.2	15.1	14.5	16.0	16.8	n/a	n/a	n/a
Uzbekistan	9.1	9.5	9.4	8.7	7.4	6.3	5.4	5.0	n/a	n/a

Source: Statistical Office of Albania, and UNICEF (1998).

Notes: Only full-time students are included.

[a] For 1989 and 1998 the number of full-time students in Albania was estimated based on the relative proportions from in the closest year.

Table 2.9 Gross enrollment rates by level of education, 1989-98

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Pre-primary	56.7	57.9	48.9	36.8	36.1	36.8	39.2	38.9	36	35.8
Primary										
Total	100.9	102.1	99.3	97.3	99.4	100.4	100.3	99.5	97.1	93.9
Male	100.3	101.5	98.2	95.3	99.1	100.8	100.5	100.4	97.7	94
Female	101.4	102.9	100.5	99.6	99.7	100	100	98.6	96.5	93.7
Lower secondary										
Total	103.4	102.5	96.2	90.8	90.7	92.5	91.4	91.5	91.1	90.1
Male	104.8	103.7	95.4	88.9	89	91.5	90.3	91.7	89.3	88.4
Female	101.9	101.1	97	92.8	92.4	93.7	92.6	92	92.1	92
Upper secondary										
Total	78.6	78	57.3	47	42.4	38.1	36.6	38.5	40.3	41
in general	24.4	25.9	28.3	29.6	30.1	29.7	29.1	31.6	33.9	34.9
in vocational	54.1	53.1	30	17.4	12.3	8.4	7.5	6.9	6.4	6.1
Tertiary										
Total	8.2	9	9.3	11.9	11.7	11.1	11.8	13.1	13.6	13.3
in full-time	6.6*	7	7.6	8.3	7.8	6.9	6.7	6.6	7	6.9*

Source: Statistical Office of Albania.

Note: * For 1989 and 1998 the number of full-time students in tertiary education has been estimated from the number of students using proportions from the closest year.

Table 2.10 Relative rural and urban enrollment, 1989-98
(in thousands)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Pre-Primary (age 3-5)										
Total enrollments	125	130	109	81	80	80	85	84	80	82
Rural enrollment	66	69	54	43	48	48	50	50	47	45
Rural as % of total enrol.	53	53	50	53	60	59	59	59	58	55
Basic (level 1-8)										
Total enrollment	552	557	540	526	536	551	558	561	559	553
Rural enrollment	382	382	364	344	347	361	360	353	346	340
Rural as % of total enrol.	69	69	67	65	65	65	65	63	62	61
Upper Secondary										
Total enrollment	203	206	147	116	103	94	90	93	98	102
Rural enrollment	110	123	79	57	46	39	33	27	28	30
Rural as % of total enrol.	54	60	54	49	45	42	37	29	29	30
of which in general	10	11	21	17	31	35	32	28	28	28
In vocational	44	49	33	22	13	7	5	1	1	2
Rural as % of total enrol.	54	60	54	49	45	42	37	29	29	30
Tertiary										
Total enrollment*	21	22	23	23	20	18	17	17	19	19

Source: Statistical Office of Albania.

Note: * Only full-time students. For 1989 and 1998 the number of full-time students was estimated based on the total number of students enrolled in tertiary education using proportions from the closest year.

Table 2.11 Reasons Albanian children 10 to 14 do not attend school (by rural and urban areas)

	Lack of financial resources	Not satisfied with quality of education	Other
Total	35.2	18.8	46.1
Rural areas	34.2	18.4	47.3
Urban areas	41.4	20.9	37.8

Source: Albanian 1996 Living Standard Measurement Survey. (Results are based on 4,772 responses, 609 from urban areas and 4,163 from rural areas.)

Table 2.12 The shift toward part-time enrollment in tertiary education, 1989-97

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Registered students (level 5A+5B)[a]										
Total	25,964	27,641	28,001	32,684	30,185	28,331	30,086	34,257	35,902	36,000
Male	12,654	13,541	13,466	16,131	14,116	14,410	13,410	14,881	15,535	n/a
Female	13,310	14,100	14,535	16,553	16,069	14,921	16,172	19,376	20,367	n/a
Students registered as full-time (levels 5A & 5B)										
Total	20,719[b]	22,059	22,705	22,835	20,190	17,792	17,235	17,094	18,550	18,601[b]
Male	n/a	10,675	10,964	10,999	9,404	8,420	7,747	7,091	7,280	n/a
Female	n/a	11,384	11,741	11,836	10,786	9,372	9,488	10,002	11,270	n/a
Students registered as part-time (level 5A)										
Total	5,245[b]	5,582	5,296	9,849	9,995	10,539	12,581	17,163	17,352	17,399[b]
Male	n/a	2,866	2,502	5,132	4,712	4,990	5,897	10,211	8,255	n/a
Female	n/a	2,716	2,794	4,717	5,283	5,549	6,684	6,952	9,097	n/a
Part-time students (as % of total)	20.2	20.2	18.9	30.1	33.1	37.2	41.8	50.1	48.3	48.3
Students registered in the first level										
Total	n/a	6,202	6,686	10,063	5,053	4,573	6,566	8,207	7,158	n/a
Full time	n/a	5,690	5,447	6,013	3,653	3,062	3,918	5,102	5,513	n/a
Part time	n/a	512	1,239	4,050	1,400	1,511	2,648	3,105	1,645	n/a
Enrollment rates										
Full-time students	6.6[b]	7.0	7.6	8.3	7.8	6.9	6.7	6.6	7.0	6.9[b]
Full- and part-time students (levels 5A & 5B)	8.2	9	9.3	11.9	11.7	11.1	11.8	13.1	13.6	13.3

Notes:

[a] Level 5A refers 4 to 5 years of university study; level 5B refers to 3 years of non-university study.

[b] For 1989 and 1998 the number of full-time students has been estimated from the number of students using proportions from the closest year.

Table 2.13 Unemployment rates by level of education

For individuals who completed at most	1993	1994	1995	1996	1997
Basic (primary and lower secondary) school	52.1	48.5	48.4	49.4	49.0
Upper secondary school	45.4	48.8	49.5	48.7	48.5
Tertiary	2.6	2.7	2.2	2.0	2.6
Unemployment rate (registered unemployment)	4.5	5.4	7.6	8.1	6.7

Source: Statistical Office of Albania.

Table 2.14 Factors that affect attendance at secondary school (estimates from a probit model of upper-secondary school attendance, 1996)

Factor	**Estimate** [b]	**Standard Error**	**Differential effect on probability of attending school (in percent)** [c]
Residence in urban area	-0.64**	0.21	-10.2
Commuting time to the center of the commune	0.01**	0.001	2.9
Percentage of unqualified teachers	-0.01*	0.01	-2.1
Male student	0.04	0.13	0.6

Source: Authors' calculations based on Albanian 1996 Employment and Welfare Survey (number of observations: 552).

Notes:

[a] Control variables related to size and demographics of the family are included in estimations.

[b] One asterisk shows the significance of the estimate at 5 percent level, and two asterisks at one percent level.

[c] The effects associated with dummy variables or, for continuous variables, with the increase of their mean value by one standard deviation.

Table 2.15 Estimates of earnings function, 1996

(Dependent variable: logarithm of monthly wage)

	Parameter estimate (t-value)
Education (excluded category: basic)	
Uncompleted basic	-0.38* (-2.9)
Upper secondary – general	0.12* (2.1)
Upper secondary – vocational	0.18** (4.2)
University	0.31** (5.7)
Age (excluded category: 20 to 30)	
Below 20	0.02 (0.2)
30 to 40	0.08 (1.8)
40 to 50	0.08 (1.8)
50 to 60	0.08 (1.1)
Over 60	0.12 (0.5)
Women	-0.19** (-4.9)
Urban area	0.08* (2.2)
Type of job contract (excluded category: regular appointment)	
Fixed-term	-.06 (-0.9)
Short-term	0.02 (0.5)
Industry (excluded category: agriculture)	
Manufacturing	0.02 (0.2)
Construction	0.06 (0.2)
Business services	0.03 (0.3)
Education	-0.08 (-0.7)
Health	-0.16 (-1.5)
Public administration	-0.06 (-0.6)

Source: Calculations based on Albanian 1996 Employment and Welfare Survey

Notes:

$R^2 = 0.18$ (number of observations: 514)

* Significant at 5 percent level.

** Significant at 1 percent level.

Table 2.16 Relative returns to education in Albania (as percentage)

	Private returns		Social returns*
Albania, 1996			
	Earnings function	Short-cut method	
Basic**	12.7	16.4	10.7
Upper secondary (general)	3.0	2.4	2.0
Upper secondary (vocational)	4.5	2.6	2.4
University	2.6	2.2	1.3
Europe, Middle East and North Africa Region (for comparison)			
Primary	17.4		15.5
Secondary	15.9		11.2
Tertiary	21.7		10.6

Source: Albania – Authors' calculations; Europe, Middle East and North Africa Region - World Bank 1995.

Notes:

* Based on short-cut method.

** In calculating returns to basic education, we assume three years of forgone earnings.

Table 3.1 Total public spending and public spending on education in Albania, 1989-98 (in millions of leks)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total public spending*	n/a	10,449	10,202	23,405	50,678	60,984	74,154	83,780	100,748	163,570
Public spending on education**	750	714	822	2,253	4,081	6,135	8,464	9,611	11,407	12,797
Real public spending on education (at 1990 prices)***	n/a	714	607	499	401	444	556	564	512	464
Changes in real public spending on education (1990=1)	n/a	1	0.85	0.70	0.56	0.62	0.78	0.79	0.72	0.65

Notes:

Public spending on education includes direct public expenditures and subsidies to households apart from students living costs.

n/a = no data available.

Sources:

* Ministry of Finance, Fiscal Statistics of Government, n.3. Data for 1998 are estimated for an 8% growth rate.

** Data on public spending on education for 1989-93 were collected from the Ministry of Finance (MOF). Data for 1994-97 are drawn from Financial Statistics of Government, 3, 1998 (MOF). 1998 data are our estimates drawing on data provided by the Ministry of Education.

*** Deflated by GDP deflator. Limitation: The adjustment relates to changes in the general (GDP) price level but not to the price level for education services. The implicit assumption is that costs in public spending are measured in terms of national income forgone, so use of the GDP is justified

Table 3.2 Total public spending and public spending on education as a percentage of GDP, 1989-98

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total public spending/GDP	n/a	62.1	62.2	46.2	40.4	33.1	32.3	29.8	29.5	35.8
Public spending on education/GDP	4.0	4.2	5.0	4.4	3.3	3.3	3.7	3.4	3.3	2.8
Spending on education as % of total public spending	n/a	6.8	8.1	9.6	8.1	10.1	11.4	11.5	11.3	7.8
Memorandum items										
GDP at current prices	18,674	16,813	16,404	50,697	125,334	184,393	229,793	280,998	341,716	456,766
GDP at constant prices (1990)	n/a	16,813	12,105	11,235	12,309	13,331	15,107	16,478	15,325	16,857

Source: Ministry of Finance. For 1998 authors' estimates based on information provided by the Ministry of Education.

Note: n/a= no data available.

Table 3.3 Public spending on education as a percentage of GDP, 1989-98 (in Albania and other transition economies)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Albania	4.0	4.2	5.0	4.4	3.3	3.3	3.7	3.4	3.3	2.8
Other transition economies										
Country mean	4.9	5.2	5.1	5.1	5.1	4.7	4.8	4.8	n/a	n/a
Armenia	n/a	n/a	7.5	8.9	5.7	2.5	3.3	n/a	n/a	n/a
Azerbaijan	n/a	7.5	6.9	6.5	6.2	3.4	3.1	3.5	n/a	n/a
Belarus	n/a	n/a	4.6	5.4	6.0	5.9	5.6	6.2	n/a	n/a
Bulgaria	n/a	5.0	5.1	6.1	5.7	4.8	4.1	3.5	n/a	n/a
Czech Republic	4.0	4.1	4.3	4.8	5.7	5.9	5.6	5.8	n/a	n/a
Estonia	n/a	n/a	n/a	6.1	7.0	6.6	7.0	n/a	n/a	n/a
Republic of Macedonia	n/a	5.9	6.8	5.4	6.0	5.7	6.1	6.3	n/a	n/a
Georgia	n/a	6.1	6.4	4.0	0.6	0.5	0.9	1.2	n/a	n/a
Hungary	5.7	5.8	6.3	6.6	6.5	6.4	5.6	5.0	n/a	n/a
Kazakhstan	n/a	n/a	n/a	2.1	3.9	3.0	3.2	n/a	n/a	n/a
Kyrgyz Republic	7.5	8.0	1.3	1.0	4.2	6.1	6.6	5.4	n/a	n/a
Latvia	5.8	4.8	4.2	4.6	6.1	6.1	6.7	6.5	n/a	n/a
Lithuania	n/a	4.5	n/a	n/a	4.3	4.3	4.3	4.3	n/a	n/a
Moldova	n/a	n/a	n/a	7.8	6.0	7.4	7.3	8.0	n/a	n/a
Poland	n/a	4.8	5.1	5.4	5.4	5.2	5.1	5.4	n/a	n/a
Romania	2.2	2.8	3.6	3.6	3.3	3.1	3.4	3.5	n/a	n/a
Russian Federation n Federation	n/a	3.7	3.6	3.6	4.0	4.5	3.5	3.7	n/a	n/a
Slovak Republic	n/a	5.5	5.6	6.0	5.2	4.4	5.1	4.9	n/a	n/a
Slovenia	n/a	n/a	4.8	5.5	5.8	5.5	5.8	5.8	n/a	n/a

Source: Data for Albania from Ministry of Finance; data for 1998 are authors' estimates based on information provided by the Ministry of Education.

Notes: Country mean refers to countries for which data are available in a particular year.
n/a= no data available.

Table 3.4 Spending per student in Albania by level of education and for all levels combined, 1989-98 (in local currency unit)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total spending per student in Local currency unit	833	780	1,005	3,021	5,518	8,260	11,289	12,728	15,088	16,929
Total spending per student in real terms at 1990 prices	n/a	780	741	669	542	597	742	746	677	614
Spending per student by level of education										
Pre-primary	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	12,392
Primary and lower secondary	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	14,516
Upper secondary	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	20,957
Tertiary	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	86,519

Source: Our calculations from data provided by Statistical Office of Albania and Ministry of Education.
Note: n/a= no data available.

Table 3.5 Spending per student in Albania relative to per capita GDP, by level of education, 1989-98*

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	OECD Total 1995
Total spending per student as % of per capita GDP	14	15	20	19	14	14	16	15	15	14	26
Spending per student as percentage of per capita GDP by level of education											
Pre-primary	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	10	16
Primary and lower sec.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	12	18
Upper secondary	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	17	25
Tertiary	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	69	49

Notes:
* Our calculations based on data provided by the Ministry of Finance and for 1998 from the Ministry of Education.
n/a= no data available.
Source: Authors' calculations.

Table 3.6 Educational spending per student by level of education relative to spending per student at the basic level, 1998*
(international comparisons)

	Pre-primary	Basic (1-8)	Upper sec	Tertiary
Albania	85	100	144	596
Comparison countries				
OECD 1995**	92	100	138	252
Austria	88	100	128	143
Czech Republic	103	100	141	340
Finland	139	100	116	172
France	96	100	183	194
Germany	130	100	186	265
Hungary	89	100	104	313
Ireland	98	100	158	338
Italy	71	100	114	107
Japan	61	100	110	216
Korea	68	100	109	244
Mexico	107	100	177	500
Netherlands	95	100	136	283
New Zealand	86	100	156	331
Spain	96	100	131	188
Sweden	63	100	109	254
Switzerland	41	100	129	266
United Kingdom	152	100	128	217
United States	n/a	100	127	303

Source:

* Authors' estimates for Albania are based on information provided by the Albanian Ministry of Education. For other countries data are for 1995 (source: OECD, 1998).

** OECD 1995 country mean.

Note: n/a= no data available.

Table 3.7 Recurrent and capital public spending on education in Albania, 1990-98

	1990	1991	1992	1993	1994	1995	1996	1997	1998	OECD 1995
Public expenditures on education (millions of leks)										
Total	714	822	2253	4081	6135	8464	9611	11407	12797	n/a
Recurrent*	644	765	2162	3829	5571	7736	8842	10392	11292	n/a
Capital**	70	57	91	252	564	728	769	1015	1505	n/a
Percentage of total expenditure										
Recurrent	90.2	93.1	96.0	93.8	90.8	91.4	92.0	91.1	88.2	90
Capital	9.8	6.9	4.0	6.2	9.2	8.6	8.0	8.9	11.8	10

Source: 1989-93 Ministry of Finance; data for 1994-97 are our estimates based on proportions provided by the Ministry of Finance; data for 1998 are our estimates from data provided by the Ministry of Education. For OECD countries, OECD (1998).

Notes:

* Recurrent expenditures are financial outlays for school resources used each year for school operations.

** Capital expenditures are outlays for assets that last longer than a year, including spending on the construction, renovation, and major repairs of buildings, and contributions to joint projects with international donors.

n/a = no data available.

Table 3.8 Real recurrent and capital spending on education in Albania, 1990-98

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Real public spending on education (GDP deflator, millions of leks)	714	607	499	401	444	557	564	512	464
Recurrent	644	565	479	376	403	509	519	466	409
Capital	70	42	20	25	41	48	45	46	55
Changes in educational spending	100	85	70	56	62	78	79	72	65
Recurrent	100	88	74	58	63	79	81	72	64
Capital	100	60	29	35	58	68	64	65	78

Source: Authors' estimates from data provided by Ministry of Finance. Data for 1998 estimated on information from the Ministry of Education.

Table 3.9 Capital and recurrent spending for different levels of education, 1998 (in thousands of leks and as percentage of the total)

	Total	Pre-primary	Basic: Primary and lower secondary	Upper secondary	Tertiary	Co-financing of donor projects	Others, capital
Total educational spending	12,796,520	977,935	7,671,304	2,012,531	1,542,616	51,6000	76,134
Recurrent	11,291,202	924,167	7,112,981	1,814,396	1,439,658	0	0
Capital	1,505,318	53,768	558,323	198,135	102,958	516,000	76,134
As % of total	100	7.6	60	15.7	12.1	4	0.6
Recurrent	100	8.2	63.0	16.1	12.8	0	0.0
Capital	100	3.6	37.1	13.2	6.8	34.3	5.1
As % of total, by level	n/a	100.0	100.0	100.0	100.0	100.0	100.0
Recurrent	n/a	94.5	92.7	90.2	93.3	0.0	0.0
Capital	n/a	5.5	7.3	9.8	6.7	100.0	100.0

Source: Authors' estimates from data provided by the Ministry of Education.

Table 3.10 How recurrent expenditures are distributed over different uses across levels of education, 1998
(in thousands of leks)

	Total	**Pre-Primary**	**Basic**	**Upper secondary**	**Tertiary**
Total recurrent expenditures	**11,291,202**	**924,167**	**7,112,981**	**1,814,396**	**1,439,658**
of which					
Staff compensation	**9,421,120**	**754,797**	**6,206,108**	**1,425,728**	**1,034,487**
Teachers	*8,267,987*	*670,931*	*5,870,643*	*1,174,129*	*552,284*
Other staff	*1,153,133*	*83,866*	*335,465*	*251,599*	*482,203*
Other recurrent expenditures	**1,870,082**	**169,370**	**906,873**	**388,668**	**405,171**
Teaching materials	*257,997*	*17,606*	*201,212*	*32,697*	*6,482*
Welfare services	*406,845*	*125,094*	*178,707*	*53,613*	*49,431*
Utilities and maintenance	*243,264*	*11,251*	*168,772*	*45,009*	*18,232*
Scholarships	*353,298*	*0*	*0*	*63,196*	*290,102*
Textbook subsidies	*250,000*	*0*	*192,000*	*58,000*	*0*
Other	*358,678*	*15,419*	*166,182*	*136,153*	*40,924*

Source: Authors' estimates on data from the Ministry of Education.

Table 3.11 How recurrent expenditures are distributed over different uses across levels of education, 1998 (percentage)

	Total	Pre-primary	Basic	Upper secondary	Tertiary
Percentage of total recurrent expenditures	100	8.2	63.0	16.1	12.8
Of which					
Staff compensation	83.4	81.7	87.3	78.6	71.9
Teachers	73.2	72.6	82.5	64.7	38.4
Other staff	10.2	9.1	4.7	13.9	33.5
Other Recurrent expenditures	16.6	18.3	12.7	21.4	28.1
Teaching materials	2.3	1.9	2.8	1.8	0,5
Welfare services	3.6	13.5	2.5	3.0	3.4
Utilities and maintenance	2.2	1.2	2.4	2.5	1.3
Scholarships	3.1	0.0	0.0	3.5	20.2
Textbook subsidies	2.2	0.0	2.7	3.2	0.0
Other	3.2	1.7	2.3	7.5	2.8
Total	100.0	100.0	100.0	100.0	100.0

Source: Authors' estimates on data from the Ministry of Education.

Table 3.12 Distribution of recurrent expenditures over different uses across different countries

	Albania (1998)	OECD mean (1995)*	Mean of transition economies (1994)**
Staff compensation	83.4	75	66
Teachers	73.2	57	n/a
Other staff	10.2	18	n/a
Other recurrent expenditures	16.6	25	37
Teaching materials	2.3	n/a	2.9
Welfare services	3.6	n/a	4.5
Utilities and maintenance	2.2	n/a	n/a
Scholarships	3.1	n/a	3.2
Textbook subsidies	2.2	n/a	n/a
Other	3.2	n/a	26.1
Total	100	100	100

Source: For Albania authors' calculations on data from the Ministry of Education.

* OECD (1998).

** Estimates based on data from UNESCO Statistical Yearbook (1997). Countries considered: Bulgaria, the Czech Republic, Estonia, Hungary, Lithuania, FYR Macedonia, Slovenia (see table 3.13).

Notes:

The OECD country mean includes data only for basic and tertiary education.

n/a= no data available.

Table 3.13 Comparative breakdown of recurrent educational spending by level of education (as percentage)

	Salaries	Teaching materials	Scholarships	Welfare services	Other
All levels of education combined					
Albania (1998)	83.4	2.3	3.1	3.6	7.6
Comparison countries (1994-95)					
Country mean	66.1	2.9	3.2	4.5	26.1
Bulgaria	70.4	n/a	2.6	0.1	26.8
Czech Republic	53.7	n/a	n/a	n/a	46.3
Estonia	69.4	4.1	0.7	4.1	21.6
Hungary	45.7	n/a	n/a	8.9	45.4
Lithuania	68.1	1.6	3.8	3.8	22.7
FYR Macedonia	82.5	0.1	0.9	3.5	13.1
Slovenia	72.8	5.7	7.8	6.5	7.1
Pre-primary					
Albania	81.7	1.9	0.0	13.5	2.9
Comparison countries (1994-95)					
Country mean	64.5	1.5	n/a	9.2	29.0
Bulgaria	61.2	n/a	n/a	0.6	38.2
Czech Republic	57.1	n/a	n/a	n/a	42.9
Estonia	73.3	1.1	n/a	6.8	20.9
Hungary	48.4	n/a	n/a	14.0	37.6
Lithuania	62.8	0.0	n/a	15.4	21.8
FYR Macedonia	n/a	n/a	n/a	n/a	n/a
Slovenia	84.3	3.3	n/a	n/a	12.4
Primary					
Albania	87.3	2.8	0.0	13.5	7.4
Comparison countries (1994-95)					
Country mean	70.6	2.1	1.0	7.2	23.7
Bulgaria	79.5	n/a	1.8	n/a	18.7
Czech Republic	58.0	n/a	n/a	n/a	42.0
Estonia	n/a	n/a	n/a	n/a	n/a
Hungary	48.4	n/a	n/a	14.0	37.6
Lithuania	n/a	n/a	n/a	n/a	n/a
FYR Macedonia	87.9	0.1	0.9	1.0	10.2
Slovenia	79.1	4.2	0.2	6.7	9.8

Table 3.13 (cont.) Comparative breakdown of recurrent educational spending by level of education (as percentage)

	Salaries	Teaching materials	Scholarships	Welfare services	Other
Upper secondary					
Albania	78.6	1.8	3.5	3.0	13.2
Comparison countries (1994-95)					
Country mean	66.6	3.6	4.7	5.5	24.6
Bulgaria	n/a	n/a	n/a	n/a	n/a
Czech Republic	57.3	n/a	n/a	n/a	42.7
Estonia	70.6	4.1	0.1	4.8	20.4
Hungary	46.2	n/a	n/a	11.5	42.2
Lithuania	72.6	0.5	2.5	0.9	23.4
Macedonia	83.6	n/a	n/a	2.4	14.0
Slovenia	69.3	6.1	11.5	7.7	5.1
Tertiary					
Albania	71.9	0.5	20.2	3.4	4.0
Comparison countries (1994-95)					
Country mean	58.7	5.3	8.0	7.7	30.7
Bulgaria	67.3	10.0	n/a	22.6	n/a
Czech Republic	43.3	n/a	n/a	n/a	56.7
Estonia	62.9	7.7	3.5	0.8	25.0
Hungary	38.5	n/a	n/a	3.9	57.6
Lithuania	66.8	0.3	14.1	0.2	18.7
Macedonia	68.0	0.2	1.8	10.7	19.3
Slovenia	64.4	8.5	12.7	7.7	6.8

Source: For Albania authors' calculations on data from the Ministry of Education; for other countries, UNESCO Statistical Yearbook (1997).

Table 4.1 Number of teachers and non-teaching staff, by level, 1989-98

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Teachers[a]										
Total (excluding tertiary)	43247	44170	44546	44956	44510	41686	42106	41507	40216	39417
Total (including tertiary)[b]	n/a	45,976	46,351	46,636	n/a	43,190	44,270	43,824	42,564	41,793
Pre-primary	5,439	5,664	5,440	5,081	4,578	4,428	4,416	4,463	4,116	4,092
Basic education	28,441	28,798	29,553	30,577	32,098	30,893	31,369	30,926	30,111	29,428
Primary	12,151	12,418	12,801	13,077	13,441	13,124	13,468	13,342	13,033	12,867
Lower secondary	16,290	16,380	16,752	17,500	18,657	17,769	17,901	17,584	17,078	16,561
Upper secondary	9,367	9,708	9,553	9,298	7,834	6,365	6,321	6,118	5,989	5,897
Tertiary	n/a	1,806	1,805	1,680	n/a	1,504	2,164	2,317[b,c]	2,348	2,376[b,c]
Non-teaching staff										
Total	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4,961	4,908	4,713
Pre-primary	n/a	n/a	n/a	n/a	n/a	n/a	n/a	420	716	673
Basic	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2,626	2,323	2,276
Upper secondary	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,585	1,539	1,434
Tertiary	n/a	n/a	340	358	n/a	281	325	330[b]	330	330[b]
Memorandum items										
Ministry of Education – total	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,524	1,557	1,346
Central office and institutes	n/a	n/a	n/a	n/a	n/a	n/a	n/a	421	452	437
District offices	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,103	1,105	909
Percent employed in education	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4.5	4.4	4.3

Notes: n/a=no data available.

[a] Full-time teachers only.

[b] Estimate.

[c] Includes part-time teachers.

Source: Ministry of education; Statistical office of Albania

Table 4.2 Employment in public and private education as a percentage of total employment, Albania and OECD countries[a]

	Teaching staff			Non-teaching (support) staff	**All staff combined**	Student enrollment as a percentage of the employed population[b]
	Primary and secondary education	Tertiary	All levels combined (including pre-primary)			
Albania (1998)	3.2	0.2	3.8	0.4	**4.2**	58.0
Mean of OECD countries (1995) [c]	2.9	0.6	3.9	1.7	**5.4**	57.2

Notes:

[a] Figures refer to all staff employed in public or private schools at any level. Both full- and part-time teachers are included.

[b] A proxy for demand for teachers.

[c] Comparison countries are Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Korea, Netherlands, New Zealand, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.

Source: Our calculations on data from the Statistical Office of Albania, and OECD (1998)

Table 4.3 Increasing percentage of women on teaching staff, by level of education, 1989-98

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Pre-primary	100	100	100	100	100	100	100	100	100	100
Basic education	53.8	55.0	56.7	56.6	60.3	59.9	60.1	60.8	60.7	61.6
Primary	65.9	65.9	66.9	69.1	72.5	72.6	71.7	72.9	73.0	73.4
Lower secondary	44.8	46.7	47.8	47.2	51.6	50.5	51.4	51.6	51.2	52.5
Upper Secondary	31.0	33.9	36.1	38.3	49.7	51.3	51.3	52.8	52.7	54.0
Tertiary (full-time staff)	n/a	28.4	27.1	29.6	n/a	27.0	27.7	n/a	29.4	n/a

Source: Statistical Office of Albania

Note: n/a=no data available

Table 4.4 Percentage of women internationally on teaching staffs in public institutions, Albania and OECD countries (by level of education)

	Pre-Primary education	Primary education	Lower secondary education	Upper secondary education (general)	Upper secondary education (vocational)
Albania (1998)	100	61.6	73.4	52.5[a]	52.5[a]
Mean of OECD countries (1995)[b]	95	75	57	50	42

Notes:

[a] Relates to both general and vocational education.

[b] Comparison countries are Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Korea, Netherlands, New Zealand, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.

Source: Statistical Office of Albania; OECD (1998).

Table 4.5 Age and experience internationally of eighth-grade mathematics teachers (percentage)

Age				
	Under 30	30-39	40-49	50 and older
Albania	15	22	30	33
Average OECD	12	28	38	21
Experience				
	0-5 years	6-10 years	11-20 years	More than 20 years
Albania	15	7	30	48
Average OECD*	16	14	34	36

Note: *Average weighted by class size.

Source: For Albania –survey of 8th grade mathematics teachers and students (see text); for other countries, OECD (1998).

Table 4.6 Percentage of Albanian teachers with higher education, 1995-97

	1995	1996	1997
Total			
Pre-Primary	6.0	7.7	7.3
Basic	51.7	51.8	52.6
Upper secondary	95.1	94.8	95.3
Urban areas			
Pre-Primary	12.1	14.1	13.7
Basic	69.1	69.3	70.3
Upper secondary	95.7	95.4	96.6
Rural areas			
Pre-Primary	2.2	3.6	2.7
Basic	43.2	43.3	44.0
Upper secondary	93.8	93.4	92.4

Source: Statistical Office of Albania.

Table 4.7 Percentage of teachers who do not meet formal standards, by level, 1997

	Percent of unqualified teachers[a]
Overall average[b]	21.8
Primary	13.6
Lower secondary	32.5
Upper secondary	9.2

Notes:

[a] Average of district-level data.

[b] Computed as a weighted average of unqualified teachers at primary, lower secondary, and upper secondary education, weighted by number of teachers.

Source: Ministry of Education.

Table 4.8 Teachers' salaries in Albania, 1989-98

	89	90	91	92	93	94	95	96	97	98
Pre-Primary education										
Starting salary (in leks) [a]	515	560	560	1540	2025	3282	4198	6268	6555	8453
Salary after 15 years' experience [b]	122	113	113	115	115	117	115	122	122	122
Salary at top of scale [b]	130	120	120	125	125	131	130	139	139	139
Basic education										
Starting salary (in leks [a])	640	640	640	1720	2258	3579	4496	6986	7360	9373
Salary after 15 years' experience [b]	116	116	116	115	108	118	117	122	122	122
Salary at top of scale [b]	122	122	122	125	125	132	129	139	139	139
Upper secondary education										
Starting salary (in leks) [a]	660	660	660	1810	2373	3854	4655	7202	7590	9660
Salary after 15 years' experience [b]	113	113	113	115	115	118	117	122	122	122
Salary at top of scale [b]	121	121	121	125	131	132	129	139	139	139
Memorandum item:										
Teachers salary after 15 years' experience relative to the average public sector salary										
Pre-Primary	1.15	1.11	0.87	0.99	0.76	0.81	0.75	0.88	0.82	n/a
Basic	1.35	1.31	1.02	1.11	0.79	0.88	0.82	0.98	0.92	n/a
Upper secondary	1.35	1.31	1.02	1.17	0.88	0.95	0.85	1.02	0.95	n/a

Notes:

[a] Starting salary refers to the average net salary per year of a full-time teacher with the minimum training necessary to be fully qualified at the beginning of his or her teaching career. Bonuses which are a regular part of the salary are included.

[b] Index relative to starting salary.

n/a=no data available.

Source: Ministry of Education.

Table 4.9 Statutory annual teachers' salaries in public primary schools

	Ratio of starting salary to per capita GDP	Ratio of salary after 15 years' experience to per capita GDP	Ratio of salary after 15 years' experience to starting salary	Years till reaching top salary	Percentage of additional bonus
Albania (1998)	0.81	.99	1.2	25	30
Mean of OECD countries (1995)[a]	1.0	1.4	1.4	25	6

Note:

[a] Comparison countries are Australia, Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Korea, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.

Source: Our calculations based on data provided by the Ministry of Education; Education at a Glance, OECD indicators.

Table 4.10 Number of teaching hours per year in public institutions by level of education, Albania and OECD countries[a]

	Primary (grades 1-4/5)	Primary (Grades 4/5-8/9)	Secondary (general)	Secondary (vocational)
Albania (1998)	730-830	640 (language) 700-750 (math) 750-800 (other subjects)	600-690 (language) 700-750 (other subjects)	600-690 (language) 700-750 (other subjects)
Mean of OECD countries (1995)[b]	791	700	633	652

Notes:

[a] Teaching time is defined as the total number of hours per year for which a full-time classroom teacher is responsible for teaching a group or class of students.

[b] Comparison countries are Austria, Belgium, Czech Republic, Denmark, France, Germany, Greece, Hungary, Ireland, Italy, Korea, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, and United States.

Source: Ministry of Education; OECD Education Database.

Table 4.11 Number of schools in Albania, by level, and by urban and rural areas, 1989-98

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Whole country										
Pre-Primary	3,329	3,426	3,174	2,784	2,656	2,668	2,670	2,656	2,408	2,330
Basic	1,698	1,726	1,764	1,779	1,777	1,782	1,797	1,799	1,803	1,815
Upper secondary	n/a	827	763	650	577	472	430	408	400	394
General schools	n/a	75	89	107	161	362	352	337	337	331
Vocational schools	n/a	575	209	95	87	69	50	51	60	54
Mixed schools	n/a	177	465	448	329	41	24	20	3	9
Urban areas										
Pre-Primary	457	469	793	676	362	334	333	338	328	382
Basic	243	245	248	262	263	265	259	259	275	290
Upper secondary	n/a	259	253	222	206	184	161	149	148	151
General schools	n/a	68	69	65	75	95	90	86	90	92
Vocational schools	n/a	137	95	78	69	61	49	49	55	53
Mixed schools	n/a	65	89	79	62	28	18	14	3	6
Rural areas										
Pre-Primary	2,872	2,957	2,381	2,108	2,294	2,334	2,337	2,318	2080	1,948
Basic	1,455	1,481	1,516	1,517	1,514	1,517	1,538	1,540	1,528	1,525
Upper secondary	n/a	568	510	428	371	288	269	259	252	243
General schools	n/a	7	20	42	86	267	262	251	247	239
Vocational schools	n/a	438	114	17	18	8	1	2	5	1
Mixed schools	n/a	112	376	369	267	13	6	6	0	3

Note: n/a=no data available.

Source: Statistical Office of Albania.

Table 4.12 Decline in number of classes, 1990-98

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Whole country									
Total	37,675	37,726	35,718	n/a	31,903	27,828	26,956	26,095	26,245
Pre-Primary	4,993	5,026	4,879	4,755	4,437	4,248	4,047	3,721	3,827
Basic	26,131	26,300	26,121	26,319	24,276	20,519	19,909	19,416	19,312
Primary	15,591	15,610	15,300	15,456	14,060	10,613	10,542	10,209	9,956
Lower secondary	10,540	10,690	10,821	10,863	10,216	9,906	9,367	9,207	9,356
Upper secondary	6,551	6,400	4,718	n/a	3,190	3,061	3,000	2,958	3,106
Urban areas									
Total	10,886	11,042	10,682	n/a	9,775	9,818	10,177	10,337	10,501
Pre-Primary	1,455	1,466	1,413	1,451	1,358	1,280	1,398	1,366	1,310
Basic	5,933	6,176	6,514	6,582	6,290	6,541	6,749	6,950	7,085
Primary	3,151	3,334	3,543	3,577	3,431	3,554	3,604	3,707	3,691
Lower secondary	2,782	2,842	2,971	3,005	2,859	2,987	3,145	3,243	3,394
Upper secondary	3,498	3,400	2,755	n/a	2,127	1,997	2,030	2,021	2,106
Rural areas									
Total	26,789	26,684	25,036	n/a	22,128	18,010	16,779	15,758	15,744
Pre-Primary	3,538	3,560	3,466	3,304	3,079	2,968	2,649	2,355	2,517
Basic	20,198	20,124	19,607	19,737	17,986	13,978	13,160	12,466	12,227
Primary	12,440	12,276	11,757	11,879	10,629	7,059	6,938	6,502	6,265
Lower secondary	7,758	7,848	7,850	7,858	7,357	6,919	6,222	5,964	5,962
Upper secondary	3,053	3,000	1,963	n/a	1,063	1,064	970	937	1,000

Note: n/a=no data available.

Source: Statistical Office of Albania.

Table 4.13 Class size, by level of education in urban and rural areas, 1990-98

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Whole country									
Total	23.7	21.1	20.2	n/a	22.7	26.3	27.4	28.3	28.1
Pre-Primary	26.0	21.7	16.6	16.9	18.1	19.9	20.8	21.6	21.4
Basic	21.3	20.5	20.1	20.4	22.7	27.2	28.2	28.8	28.7
Primary	18.3	18.1	18.3	18.6	21.0	28.4	28.8	29.3	29.3
Lower secondary	25.9	24.2	22.8	22.8	25.0	25.9	27.4	28.3	27.9
Upper secondary	31.4	22.9	24.6	n/a	29.4	29.4	31.0	33.4	32.9
In urban areas									
Total	29.2	27.0	26.1	n/a	28.4	29.4	30.3	30.7	30.7
Pre-Primary	41.9	37.4	27.0	22.3	23.8	27.0	24.5	24.5	28.0
Basic	29.4	28.5	27.9	28.6	30.2	30.2	30.8	30.7	30.2
Primary	28.6	27.8	28.4	28.2	30.1	30.0	31.1	30.4	30.0
Lower secondary	30.4	29.2	27.2	29.1	30.3	30.5	30.5	31.0	30.4
Upper secondary	23.6	19.7	21.6	n/a	25.8	28.3	32.6	34.9	34.1
In rural areas									
Total	21.4	18.7	17.7	n/a	20.2	24.6	25.6	26.7	26.4
Pre-Primary	19.5	15.2	12.4	14.5	15.6	16.8	18.9	20.0	17.9
Basic	18.9	18.1	17.6	17.6	20.1	25.8	26.8	27.8	27.8
Primary	15.6	15.4	15.2	15.8	18.0	27.6	27.6	28.7	29.0
Lower secondary	24.2	22.3	21.1	20.4	23.0	24.0	25.9	26.8	26.5
Upper secondary	40.3	26.5	28.8	n/a	36.7	31.3	27.7	30.1	30.4

Note: n/a=no data available.

Source: Statistical Office of Albania.

Table 4.14 Student-teacher ratio, by level of education and in urban and rural areas, 1989-98

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Whole country										
Average[a]	20.3	20.2	17.9	16.1	16.2	17.4	17.4	17.8	18.4	18.7
Pre-Primary	23.0	23.0	20.0	16.0	17.6	18.1	19.1	18.9	19.5	20.0
Basic	19.4	19.3	18.3	17.2	16.7	17.8	17.8	18.1	18.6	18.8
Primary	22.9	22.9	22.0	21.4	21.4	22.5	22.4	22.8	23.0	22.7
Lower secondary	16.8	16.6	15.4	14.1	13.3	14.4	14.4	14.6	15.2	15.8
Upper secondary	21.7	21.2	15.3	12.5	13.2	14.7	14.2	15.2	16.5	17.3
Tertiary education[b]	n/a	15.3	15.5	19.5	n/a	18.8	18.9	n/a	22.7	n/a
Urban areas										
Average[a]	18.3	18.0	16.8	15.9	16.5	17.3	17.9	19.4	20.1	20.4
Pre-Primary	27.8	22.0	19.7	15.8	18.1	19.1	20.4	19.8	19.6	20.6
Basic	17.8	19.5	19.3	19.2	18.6	19.2	19.3	20.7	21.6	21.4
Primary	25.3	27.9	27.6	28.2	27.7	29.3	27.9	29.8	29.7	28.4
Lower secondary	13.6	14.8	14.4	13.7	13.4	13.6	14.2	15.3	16.5	17.0
Upper secondary	15.7	14.0	11.6	10.5	11.7	12.2	13.4	16.1	17.0	17.9
Rural areas										
Average[a]	21.7	21.7	18.5	16.2	15.9	17.5	17.1	16.8	17.2	17.5
Pre-Primary	19.9	23.9	20.4	16.1	17.2	17.5	18.4	18.3	19.5	19.5
Basic	20.2	19.3	17.8	16.3	15.8	17.2	17.1	16.9	17.1	17.5
Primary	22.0	21.2	20.0	18.8	19.1	20.0	20.1	20.0	20.2	20.2
Lower secondary	18.7	17.6	15.9	14.2	13.2	14.8	14.5	14.3	14.5	15.1
Upper secondary	31.8	32.4	21.1	15.6	15.6	20.8	15.8	13.4	15.3	16.2

Notes:

[a] Excluding tertiary education.

[b] Full- and part-time students included.

n/a=no data available.

Source: Our calculations based on data provided by the Statistical Office of Albania.

Table 4.15 Student-teacher ratio in Albania and OECD countries, by level of education

	Pre-Primary	Primary	Lower secondary	Upper secondary	Tertiary
Albania (1998)	20.0	22.7	15.8	17.3	22.7 [a]
Comparison countries (1996) [b]					
Mean of OECD countries (1995) [b,c]	17.6	18.3	14.8	13.7	15.7

Notes: n/a = no data available.

[a] For 1997.

[b] Calculations based on full-time equivalents of teachers.

[c] Comparison countries are Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxemburg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.

Source: Authors' calculations based on data provided by the Statistical Office of Albania; OECD database.

Table 4.16 Average school size: average number of students and classes per school, by level of education and in urban and rural areas, 1989-98

Number of students per school										
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Whole country										
Pre-Primary	37.6	37.9	34.3	29.1	30.3	30.1	31.7	31.7	33.4	35.1
Basic	324.9	322.8	306.2	295.6	301.5	309.1	310.6	311.7	310.2	304.9
Upper secondary	n/a	248.8	192.1	178.5	179.0	198.8	209.1	228.1	246.8	259.3
In urban areas										
Pre-Primary	129.8	130.1	69.2	56.4	89.5	96.9	103.7	101.3	101.9	96.2
Basic	696.1	712.8	708.8	692.9	716.6	717.3	763.2	803.2	774.7	737.2
Upper secondary	n/a	319.1	265.0	267.7	276.0	297.7	351.5	444.1	476.4	474.9
In rural areas										
Pre-Primary	23.0	23.3	22.7	20.4	20.9	20.6	21.4	21.6	22.6	23.1
Basic	262.9	258.3	240.3	227.0	229.4	237.7	234.3	229.0	226.6	222.7
Upper secondary	n/a	216.8	155.9	132.3	125.2	135.6	123.8	103.8	111.9	125.3
Number of classes per school										
Whole country										
Pre-Primary	n/a	1.5	1.6	1.8	1.8	1.7	1.6	1.5	1.5	1.6
Basic	n/a	15.1	14.9	14.7	14.8	13.6	11.4	11.1	10.8	10.6
Upper secondary	n/a	7.9	8.4	7.3	n/a	6.8	7.1	7.4	7.4	7.9
In urban areas										
Pre-Primary	n/a	3.1	1.8	2.1	4.0	4.1	3.8	4.1	4.2	3.4
Basic	n/a	24.2	24.9	24.9	25.0	23.7	25.3	26.1	25.3	24.4
Upper secondary	n/a	13.5	13.4	12.4	n/a	11.6	12.4	13.6	13.7	13.9
In rural areas										
Pre-Primary	n/a	1.2	1.5	1.6	1.4	1.3	1.3	1.1	1.1	1.3
Basic	n/a	13.6	13.3	12.9	13.0	11.9	9.1	8.5	8.2	8.0
Upper secondary	n/a	5.4	5.9	4.6	n/a	3.7	4.0	3.7	3.7	4.1

Note: n/a=no data available.

Source: Authors' computations based on data provided by Statistical Office of Albania.

Table 4.17 Teachers' approaches to classroom organization for 8th grade math lessons

	Albania	OECD average
Work in pairs or small groups with assistance from teacher	74	22
Work together as a class, with teacher teaching the whole class	70	54
Work individually with assistance of teacher	67	60
Work individually without assistance of teacher	44	24
Work together as a class, with students responding to one another	19	13
Work in pairs or small groups without assistance from teacher	15	9

Sources: For Albania, authors' teacher survey; for OECD average, OECD (1997).

Table 4.18 Teachers' school-related activities outside the formal school day (8th grade mathematics teachers)

	Weekly number of hours	
	Albania	OECD average
Preparing or grading tests	3.0	2.6
Planning and preparing lessons	2.1	3.0
Reading and grading student homework	1.9	1.9
Professional reading and development	1.5	1.2
Meeting parents	1.5	0.6
Meeting with students outside the classroom	1.2	1.1
Keeping students records up to date	0.9	0.9
Performing administrative tasks	0.8	1.7
TOTAL	12.9	12.9

Sources: For Albania, authors' teacher survey; for OECD average, OECD (1997).

Table 4.19 How eighth-grade students spend their daily after-school study time (average number of hours, as reported by students)

	Albania	OECD average
Time spent studying or doing homework for all of school subjects	2.9	2.5
Time spent studying or doing homework, consisting of memorization by heart	1.4	n.a.
Time spent studying or doing homework for mathematics only	1.0	0.8

Sources: For Albania, authors' teacher survey; for OECD average, OECD (1997).

Table 5.1 Projected recurrent expenditures for education under base scenario, 1998-2010 (as percentage of GDP)[a]

	1998 (historical data)	2000	2005	2010
Recurrent expenditures under the base scenario (as percentage of GDP)				
Current expenditures	2.5	2.5	2.1	1.8
Pre-Primary	0.2	0.2	0.1	0.1
Basic	1.6	1.6	1.2	1.0
Upper secondary	0.4	0.4	0.4	0.3
Tertiary	0.3	0.3	0.4	0.3
Memorandum item: demographic projections, by age group (in thousands)				
Total	1368	1301	1336	1316
Pre-Primary (3-5 years)	228	185	181	187
Basic (6-13 years)	601	573	516	484
Upper secondary (14-17)	270	273	299	272
Tertiary (18-22)	269	270	340	373

Note:

[a] We assumed unchanged enrollment rates and real per student expenditures, and an average growth rate in real GDP of 3 percent a year.

Source: Authors calculations. Demographic projections: Statistical Office of Albania.

Table 5.2 Projected increase in recurrent spending on staff salaries, 2000-10 (as percentage of GDP)

	2000	2005	2010
Total increase	0.30	0.25	0.21
Pre-Primary	0.02	0.02	0.02
Basic	0.20	0.16	0.13
Upper secondary	0.05	0.04	0.03
Tertiary	0.03	0.03	0.03

Source: Authors' calculations, based on salary increase for public workers announced in April 1999.

Table 5.3 Projected recurrent spending on education under increased-enrollment rate scenario, 1998-2010 (as a percentage of GDP)[a]

	1998 (historical data)	2000	2005	2010
Recurrent spending under a scenario of increased enrollment				
Total	2.5	2.7	2.6	2.4
Pre-Primary	0.2	0.2	0.1	0.1
Basic	1.6	1.6	1.4	1.1
Upper secondary	0.4	0.5	0.6	0.5
Tertiary	0.3	0.4	0.5	0.6
Difference from base scenario				
Total	n.a.	0.13	0.44	0.59
Pre-Primary	n.a.	0.00	0.00	0.00
Basic	n.a.	0.03	0.11	0.09
Upper secondary	n.a.	0.04	0.15	0.20
Tertiary	n.a.	0.05	0.19	0.30
Memorandum item: Assumed enrollment rates				
Pre-primary (assume no change)	35.8	35.8	35.8	35.8
Basic	92.1	94.0	100.0	100.0
Upper secondary	37.8	41.8	51.8	61.8
Tertiary	13.3	15.3	20.3	25.3

Note:

[a] We assumed as a target universal participation in basic education by 2005, and an increase in the enrollment rate for upper secondary and tertiary education that would cut in half the enrollment gap between Albania and the OECD average by the year 2010.

Source: Authors' calculations.

Table 5.4 Projected recurrent spending on education under increased nonsalary spending scenario, 1998-2010 (as a percentage of GDP)[a]

	1998 (historical data)	2000	2005	2010
Recurrent expenditures under the target scenario				
Total	2.5	3.2	2.7	2.2
Pre-Primary	0.2	0.2	0.2	0.2
Basic	1.6	2.0	1.6	1.3
Upper secondary	0.4	0.5	0.5	0.4
Tertiary	0.3	0.4	0.5	0.4
Difference from base scenario				
Total	n.a.	0.65	0.55	0.46
Pre-Primary	n.a.	0.05	0.04	0.04
Basic	n.a.	0.41	0.32	0.26
Upper secondary	n.a.	0.09	0.09	0.07
Tertiary	n.a.	0.09	0.10	0.09
Memorandum item: Assumed nonsalary shares of expenditures (historic values for 1998)				
Pre-Primary	0.183	0.355	0.355	0.355
Basic	0.127	0.294	0.294	0.294
Upper secondary	0.215	0.334	0.334	0.334
Tertiary	0.285	0.413	0.413	0.413

Notes:

[a] We assumed that the nonsalary share of expenditures will rise to match the average share of non-salary expenditures in the European transition economies.

n/a = no data available.

Source: Authors' calculations.

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